سلسلة

الأوائل

في

الرياضيات

الصف الخامس لغات الإبتدائى ترم أول

إعداد

أ / فريد موسى

اسم الطالب /......................................

ت / 01032243340

the first unit Lesson (1)

Decimal fractions up to thousandths

Decimal fraction
- It is a fraction with a denominator of 10, 100, 1000, or 10,0000....

Or it can be written in another way using the decimal point (.)

integer
- Write to the left of the decimal point(.)
- It is an ordinary fraction whose numerator is divisible by its denominator without a remainder.

Fractional number
- Consists of an integer, regular fraction.

Decimal number
- Consists of an integer, decimal fraction.

Example (1)

normal fraction	Decimal fraction	is reading
$\frac{3}{10}$	0.3	3 tenths
$\frac{32}{100}$	0.32	32 hundredths
$\frac{6}{1000}$	0.006	6 thousandths

Example (2)

Fractional number	Decimal number	is reading
$4\frac{3}{10}$	4.3	4 ones and 3 tenths
$5\frac{32}{100}$	5.32	5 ones,and 32 hundredths
$7\frac{6}{1000}$	7.006	7ones and 6 thousandths

one
- 1.0 = 10 tenths = 100 hundredths

(1) Write in decimal number form			(1) Write in decimal form		
(1)	$5\frac{2}{10}$		(1)	$\frac{4}{10}$	
(2)	$6\frac{34}{100}$		(2)	$\frac{54}{100}$	
(3)	$23\frac{4}{1000}$		(3)	$\frac{8}{1000}$	
(4)	$54\frac{6}{10}$		(4)	$\frac{1}{10}$	
(5)	$76\frac{85}{100}$		(5)	$\frac{26}{100}$	
(6)	$7\frac{68}{1000}$		(6)	$\frac{678}{1000}$	
(7)	$62\frac{7}{10}$		(7)	$\frac{9}{10}$	
(8)	$13\frac{7}{100}$		(8)	$\frac{77}{100}$	
(9)	$100\frac{631}{1000}$		(9)	$\frac{38}{1000}$	
(10)	$3\frac{7}{10}$		(10)	$\frac{7}{10}$	

place value

239 . 147

Hundreds	tens	one	decimal point	tenths	hundredths	thousandth
2	3	9	.	1	4	7

number value

239 . 147

200	30	9	decimal point	0.1	0.04	0.007

(1) Write the place value of the number 8			(1) Write the value of the number 5		
(1)	18.13		(1)	54.23	
(2)	83.577		(2)	34.59	
(3)	23.87		(3)	1.05	
(4)	42.08		(4)	3.345	
(5)	5.978		(5)	25.67	

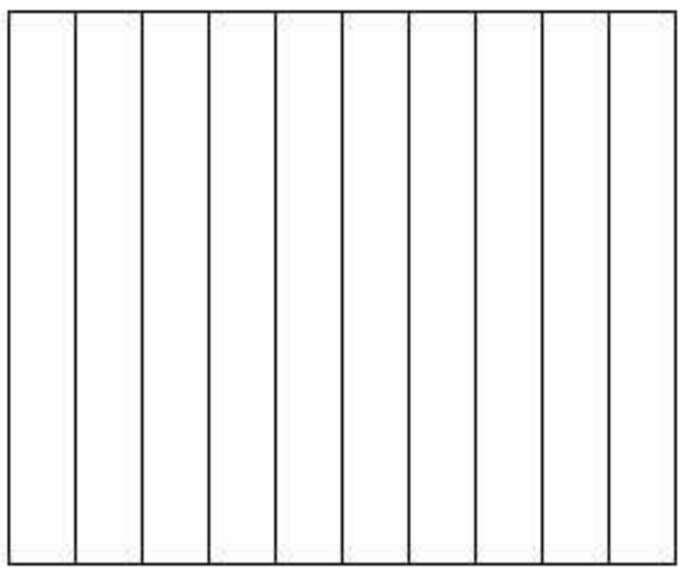
Example 2: - Read and then write each number in word form	
1	34,569 written in words ....
2	26.372 written in words ....
3	9.43 written in words ....
4	42.005 written in words ....
5	1.342 written in words ....

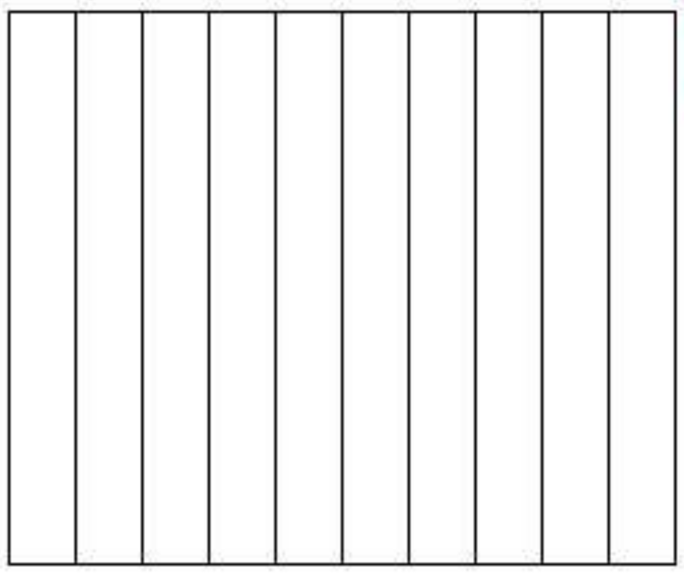
Example 3 :Use numbers to write the largest and smallest number up to the thousandths	
1	3 ,8 ,5 ,4 largest number is .... smallest number is...............
2	1 ، 5 ، 7 ، 9 largest number is .... smallest number is...............

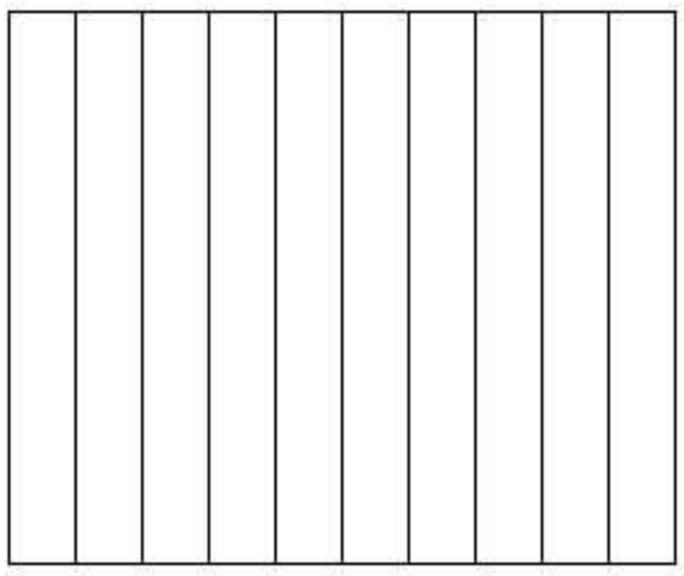
Example 4: - Complete writing the formulas as in the example				
		extended formula	units formula	word formula
Ex	4.23	0.03 + 0.2 + 4	4ones, 2 tenths, 3 hundredths	Four, twenty-three hundredths
(1)	34.59			
(2)	1.05			
(3)	3.345			
(4)	25.67			

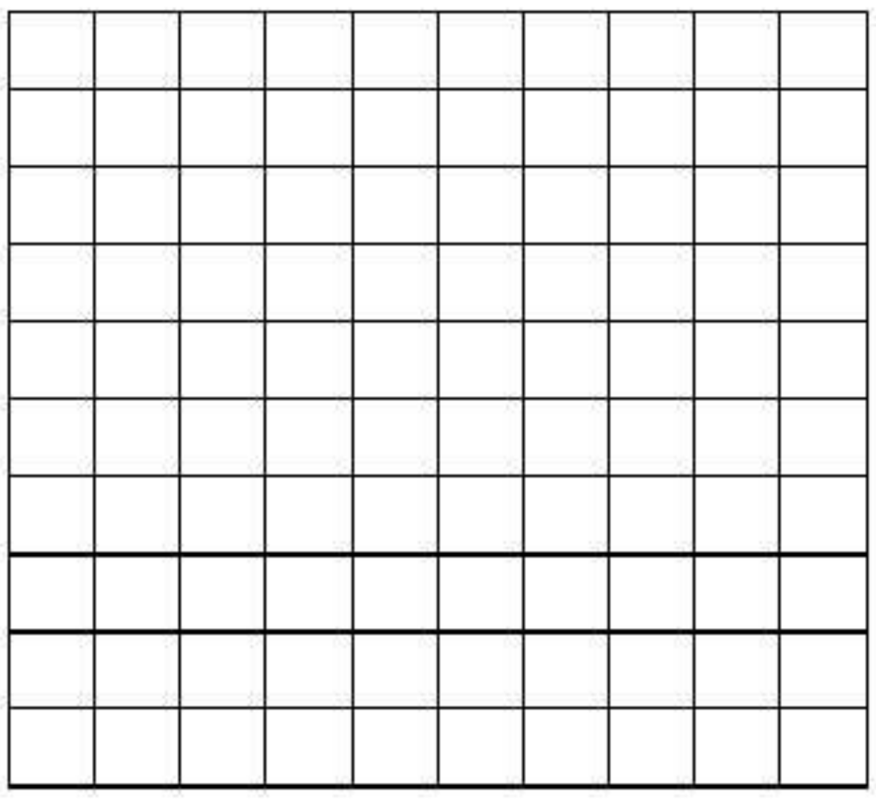
Example 5: - Complete the following	
1	place value of the digit 5 in the decimal fraction 0.175 is .....
2	The value of the 8 in the number 12.518 is .... and its place value is.........................
3	The number that represents the thousandth part of the number 43.862 is................................
4	The number of tenths in the decimal fraction 0.389 is.........
5	The number of thousandths in the decimal fraction 0.389 Is ....
6	The number of hundredths in the decimal fraction 0.345 Is..
7	7 hundredths is equivalent = ... thousandth
8	The normal fraction that is equivalent to the decimal fraction 0.410 is................................
9	The decimal fraction that is equivalent to the normal fraction $\frac{14}{100}$ is...............
10	Write three values for the digit 6 in the number 36.266 .... ، .... ، ....
11	6 tenths = ... hundredth = ... thousandth

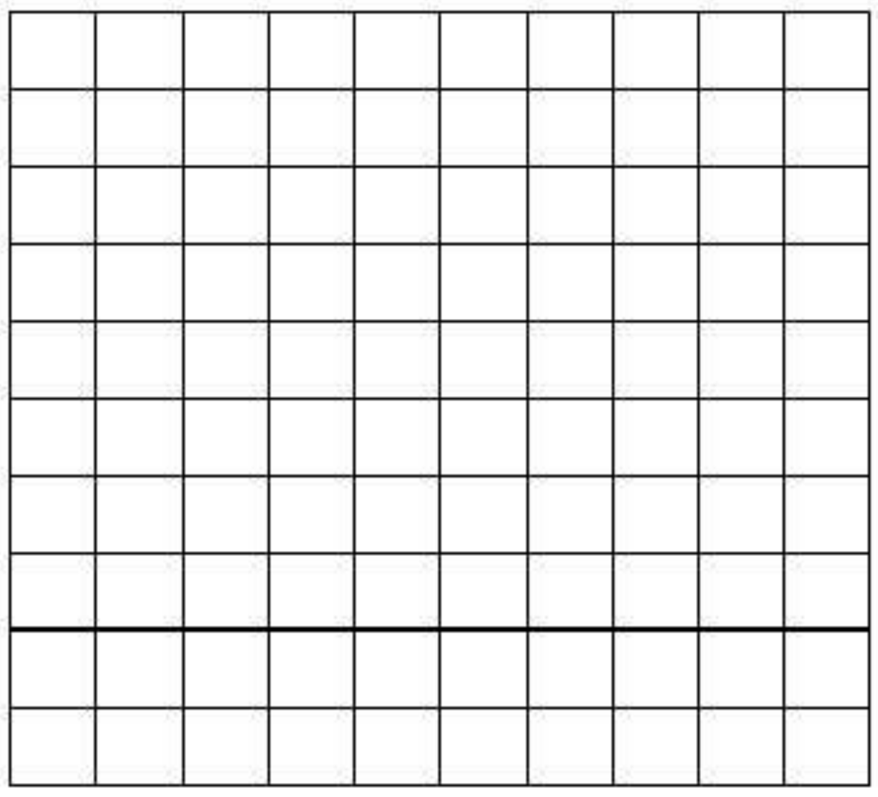
Example 6: - Shade

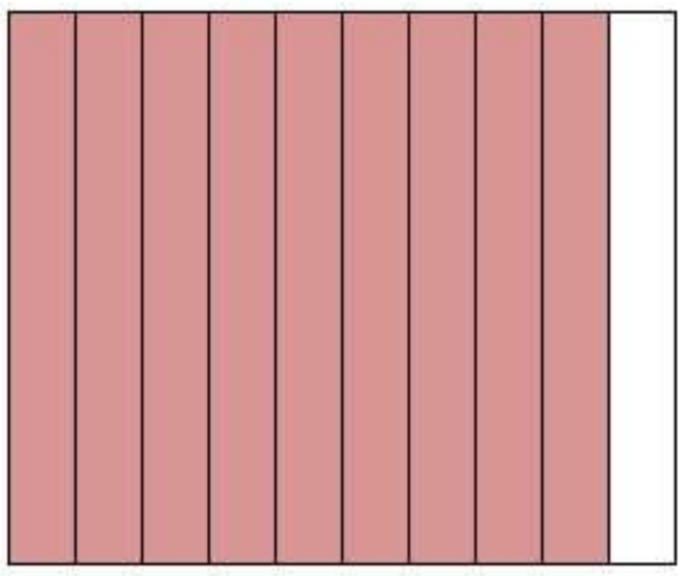
1

0.4

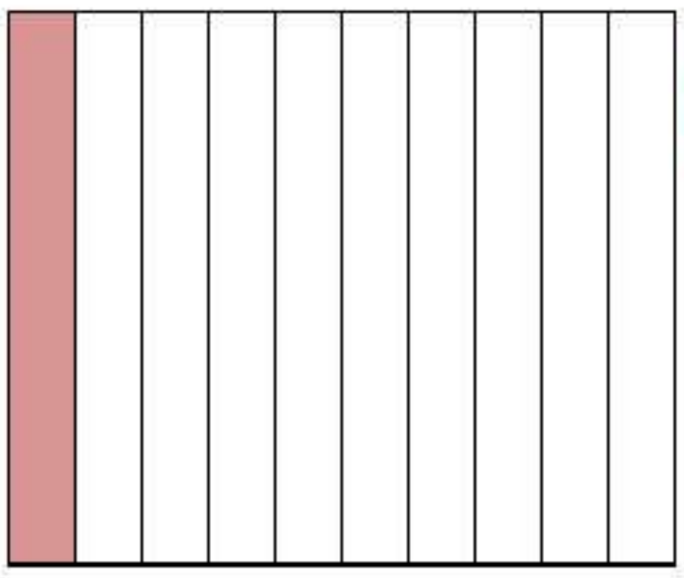
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0.6

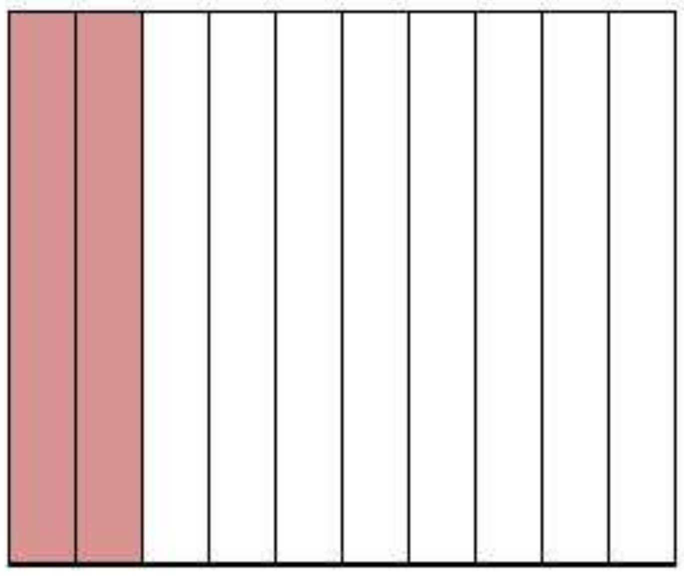
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0.1

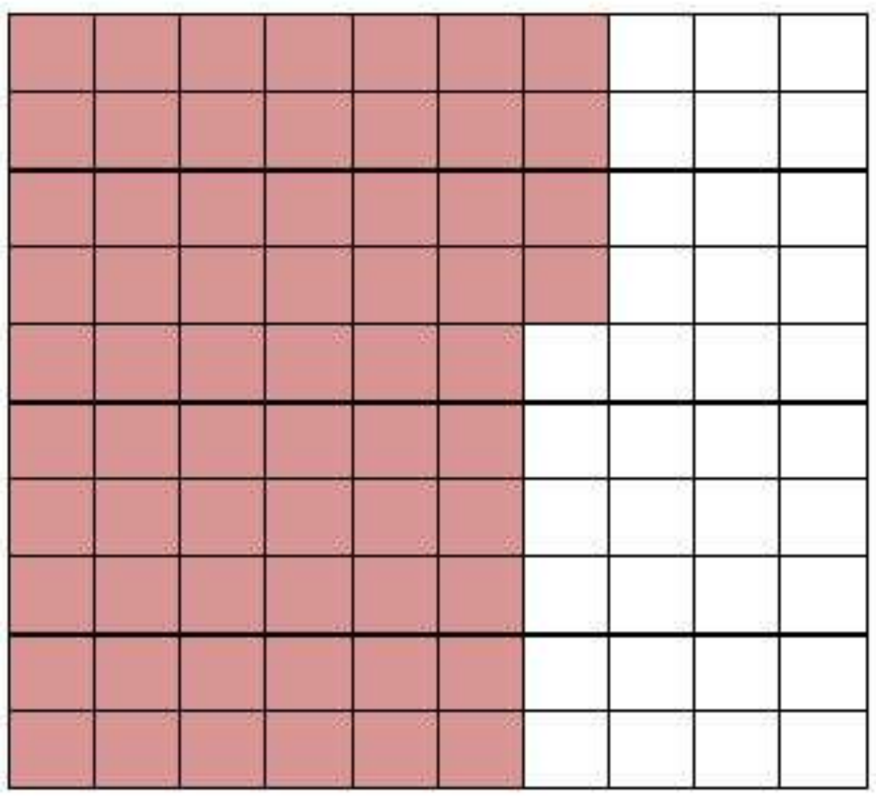
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0.63

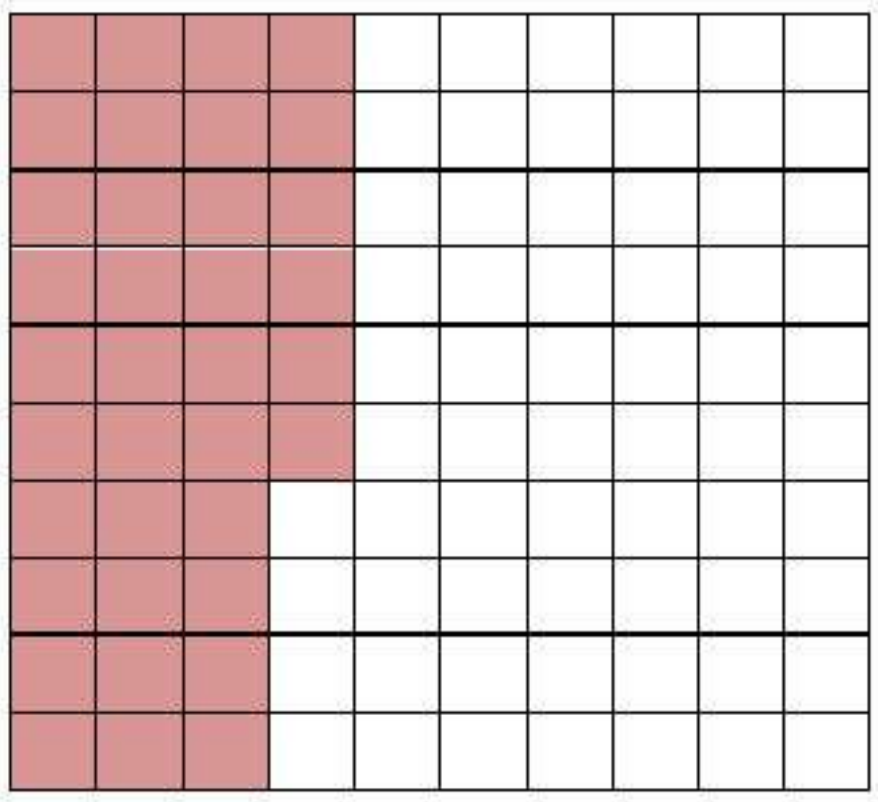
5

0.25

6

....

7

....

8

....

9

....

10

....

Exercises (1)

(1) Write in decimal form			(1) Write in decimal number form		
(1)	$\frac{3}{10}$		(1)	$34\frac{7}{10}$	
(2)	$\frac{36}{100}$		(2)	$69\frac{21}{100}$	
(3)	$\frac{28}{1000}$		(3)	$41\frac{41}{1000}$	
(4)	$\frac{2}{10}$		(4)	$61\frac{4}{10}$	
(5)	$\frac{57}{100}$		(5)	$7\frac{15}{100}$	
(6)	$\frac{876}{1000}$		(6)	$34\frac{831}{1000}$	
(7)	$\frac{5}{10}$		(7)	$6\frac{8}{10}$	
(8)	$\frac{33}{100}$		(8)	$24\frac{17}{100}$	
(9)	$\frac{85}{1000}$		(9)	$10\frac{742}{1000}$	
(10)	$\frac{6}{10}$		(10)	$14\frac{1}{10}$	

(1) Write the value of the number 2			(1) Write the place value of the number 9		
(1)	54.23		(1)	18.19	
(2)	34.52		(2)	93.577	
(3)	2.05		(3)	29.87	
(4)	3.342		(4)	42.09	
(5)	25.67		(5)	5.978	

Example 2 :Use numbers to write the largest and smallest number up to the thousandths	
1	2 ، 8 ، 7 ، 9 largest number is .... smallest number is................
2	1 ، 4 ، 5 ، 3 largest number is .... smallest number is................

Example 3: - Read and then write each number in word form	
1	23,516 written in words ....
2	12.879 written in words ....
3	6.12 written in words ....
4	89.104 written in words ....
5	3.672 written in words ....

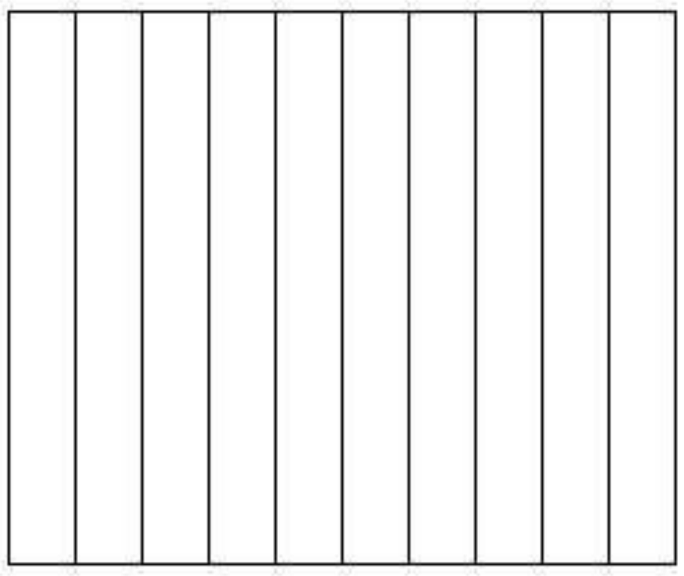
Example 4: - Complete

		word formula	units formula	extended formula
(1)	5.32			
(2)	12.26			
(3)	1.71			
(4)	1.892			
(5)	45.61			

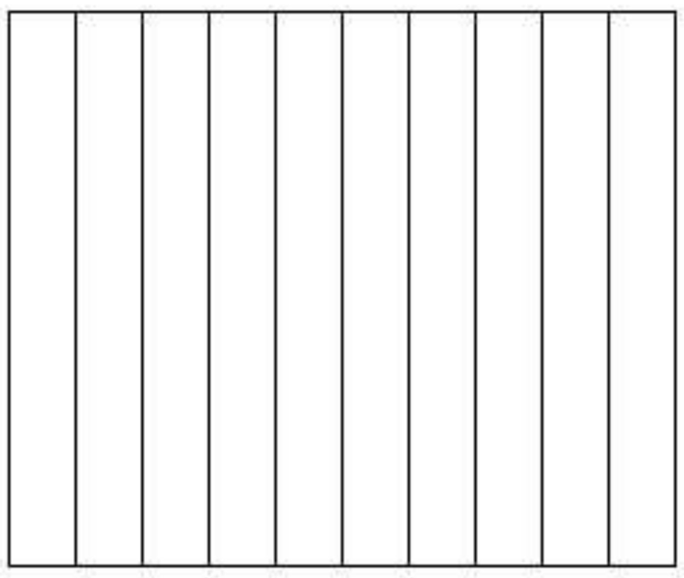
Example 5: - Complete the following	
1	place value of the digit 1 in the decimal fraction 0.175 is .....
2	The value of the 1 in the number 12.518 is .... and its place value is..........................
3	The number that represents the hundredths part of the number 43.862 is................................
4	The number of tenths in the decimal fraction 0. 541 is.........
5	The number of thousandths in the decimal fraction 0.541 Is ....
6	The number of hundredths in the decimal fraction 0.7 Is..

7	8 hundredths is equivalent = ………………. thousandth
8	The normal fraction that is equivalent to the decimal fraction 0.520 is……………………………
9	The decimal fraction that is equivalent to the normal fraction $\frac{53}{100}$ is……………
10	Write three values for the digit 8 in the number 38.886 ……………………… ، ……………………… ، ………………………
11	4 tenths = ……….. hundredth = ……………. thousandth

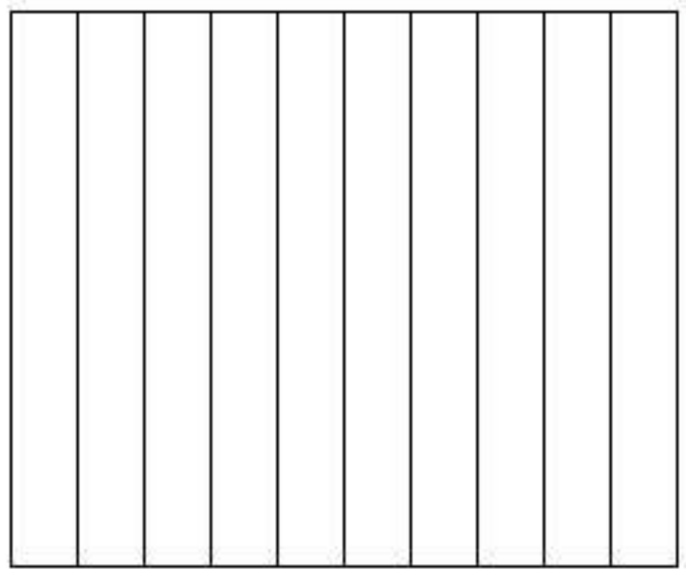
- **Example 6: - Shade**


1

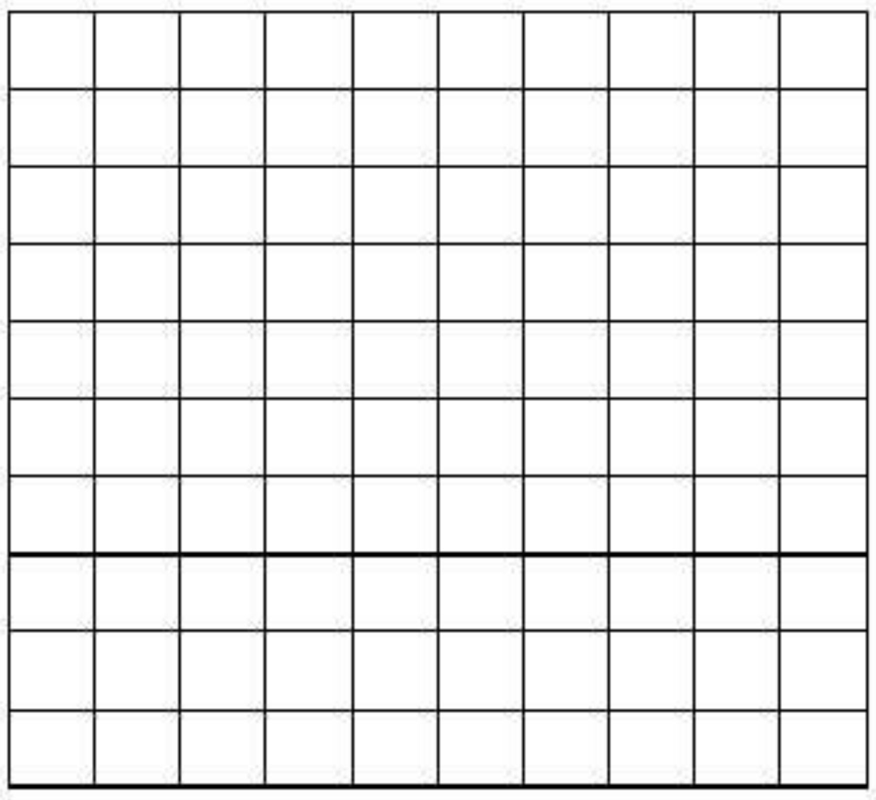
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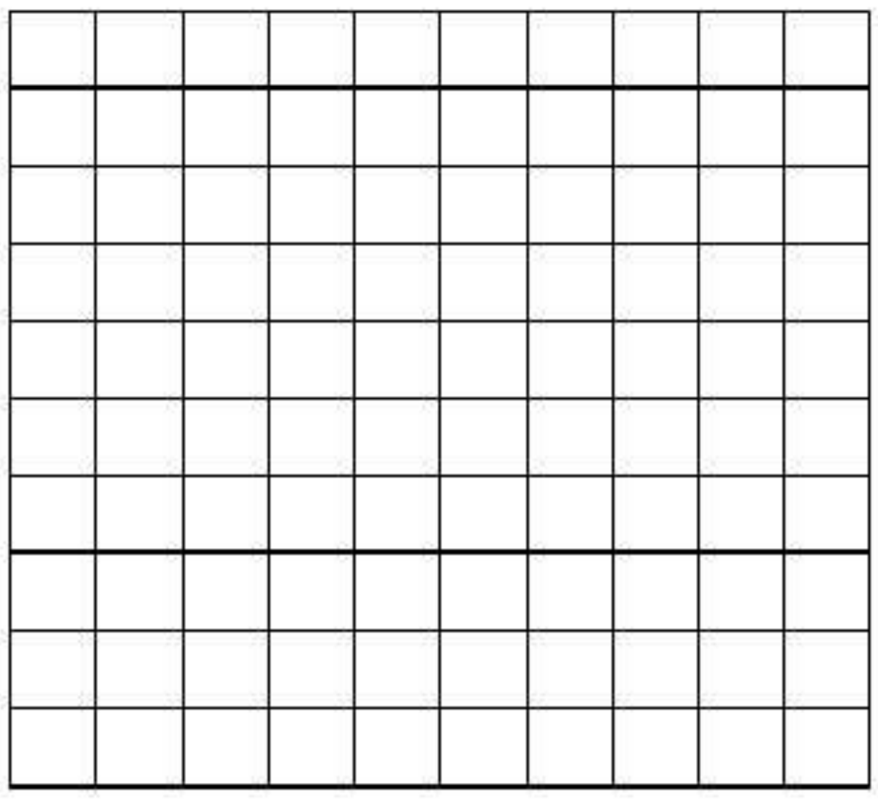
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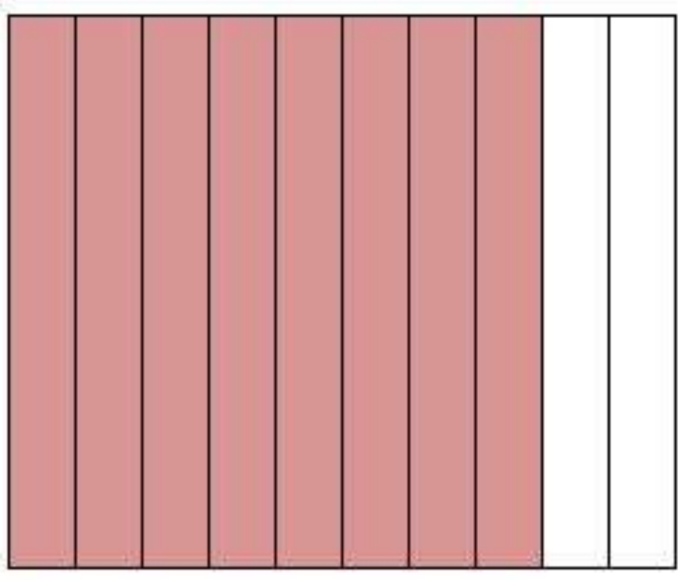
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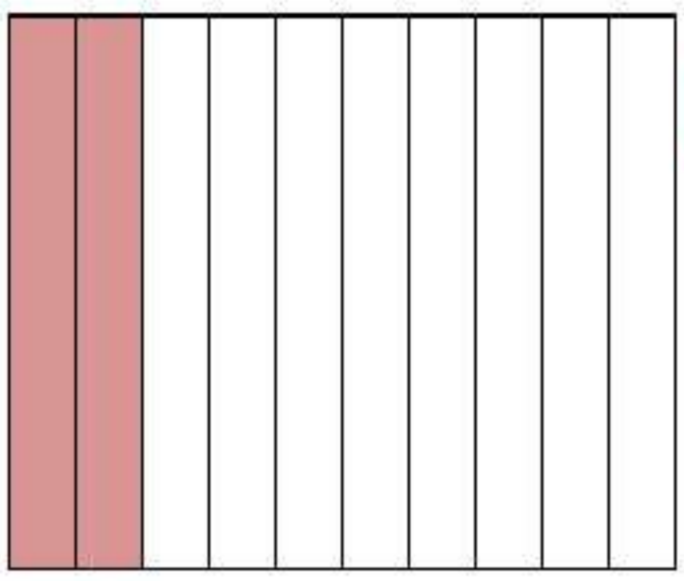
0.74


5

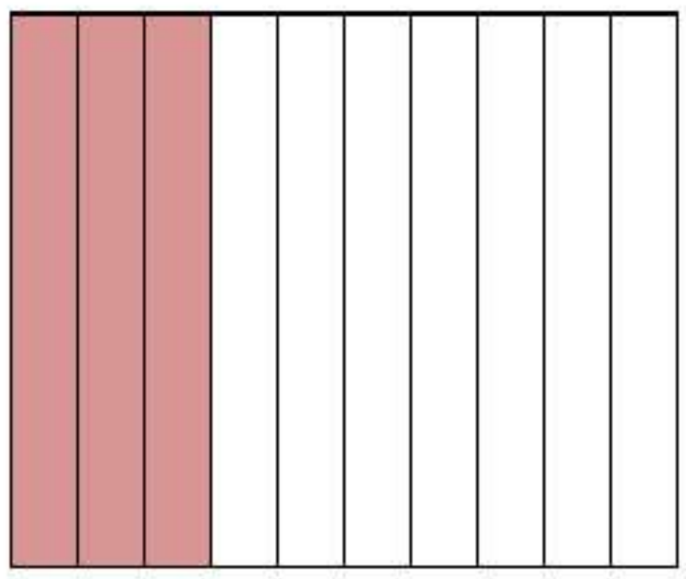
0.45


6

…….


7

…….


8

…….

the first unit
Lesson (2 – 3)

Changing place values forming and analyzing decimals

• In the next number, notice the value of the number 4

444 . 444

400	40	4	decimal point	0.4	0.04	0.004

to learn

- Whenever the number moves to the left by one digit, we multiply by 10
- whenever the number moves to the right one place, we divide by 10

Example (1) Complete (increase - decrease).

1	43 × 10 = 430 The value of the number increase is multiplied by 10 The value of the number 4 increased from 40 to 400	5	64 ÷ 10 = ... The value of the number .... by dividing by 10 The value of the number 4 decreased from .... to......
2	32.7 × 10 = ... The value of the number .... by multiplying by 10 The value of the number 2 increased from .... to........	6	24.152 ÷ 10 = ... The value of the number .... by dividing by 10 The value of the number 5 decreased from .... to ......
3	75.34 × 10 = ... The value of the number .... by multiplying by 10 The value of the number 3 increased from .... to........	7	94.37 ÷ 10 = ... The value of the number .... by dividing by 10 The value of the number 3 decreased from .... to ......

4	6.264 × 10 = ... The value of the number .... by multiplying by 10 The value of the number 4 increased from .... to........	8	42.87 ÷ 10 = ... The value of the number .... by dividing by 10 The value of the number 8 decreased from .... to ......

Forming and analyzing decimal numbers

• **Analyze the decimal number 324.145**

- Extended formula: 0.005 + 0.04 + 0.1 + 4 + 20 + 300
- Extended formula: 0.145 + 4 + 20 + 300
- Units formula: 3 hundreds, 2 tens, 4 ones, 1 tenth, 4 hundredth and 5 thousandth..

Analytical formula :

(3×100) + (2×10)+(4×1)+(1× 0.1)+(4× 0.01)+(5× 0.001)

Example 2: - Complete the following	
1	900 + 90 + 6 + 0.4 + 0.03 + 0.007=....................................
2	54.742 =..
3	5tens, 4 ones, 8 tenths, 9 thousandths= ....
4	50 + 3 + 6 + 0.4 + 0.2 + 0.04=.....................................
5	0.6 + ... = 1 , 3.4 + ...= 3.8
6	0.2 + 0.6 + ... = 1 , 5 + 0.6 + 0.08 = ...
7	(3×100) + (2×10)+(4×1)+(1×0.1)+(4×0.01)+(5×0.001)= ....
8	(8×100) + (7×10)+ (5×0.1)+(2×0.01) =..........................
9	60 + 0.7 + 0.008 =..
10	6thousandths, 8 thousandths = ...
11	4hundreds, 3 ones, 7 tenths, 2 thousandths = ...
12	34.457 =..
13	75.243 read ....
14	36.724 read ....

Exercises (2)

Example (1) Complete (increase - decrease).

1	41.5 × 10 = ... The value of the number .... by multiplying by 10 The value of the number 5 increased from .... to........	5	89 ÷ 10 = ... The value of the number .... by dividing by 10 The value of the number 8 decreased from .... to ......
2	51.9 × 10 = ... The value of the number .... by multiplying by 10 The value of the number 1 increased from .... to........	6	63.256 ÷ 10 = ... The value of the number .... by dividing by 10 The value of the number 2 decreased from .... to ......
3	42.67 × 10 = ... The value of the number .... by multiplying by 10 The value of the number 7 increased from .... to........	7	13.47 ÷ 10 = ... The value of the number .... by dividing by 10 The value of the number 7 decreased from .... to ......

Example 2: - Complete the following

1	700 + 50 + 4 + 0.3 + 0.02 + 0.005=....................................
2	31.561 =..
3	4tens, 1 ones, 7 tenths, 6 thousandths =.........................
4	40 + 7 + 5 + 0.2 + 0.4 + 0.03=..................................
5	0.9 + ... = 1 , 6.3 + ...= 6.8
6	0.3 + 0.4 + ... = 1 , 2 + 0.1 + 0.04 = ...
7	(4×100) + (3×10)+(5×1)+(7×0.1)+(9×0.01)+(4×0.001)= ....
8	(7×100) + (5×10)+ (4×0.1)+(3×0.01) =............................
9	70 + 0.6 + 0.005 =...
10	4 thousands, 7 thousandths = ...
11	5 hundreds, 7 ones, 4 tenths, 9 thousandths =................
12	25.624 =..
13	36.478 read ....
14	256,325 read ....

the first unit
Lesson (4)

Comparing decimals

• to learn

Example: Compare 4.526 with 4.53

The number of digits of the decimal part must be unified in the two numbers by adding zeros to the right of the number

- First: We compare the ones
- Second: We compare parts of ten
- Third: We compare parts of a hundred
- Fourth: We compare the parts of a thousand

4.530 > 4.526

Example 1: - Compare using (= , < , >)

1	3.204		3.24	6	14.010		$14\frac{9}{10}$
2	20.7		20.077	7	five thousand		0.500
3	9.079		9.08	8	$7\frac{2}{1000}$		2.007
4	4+0.1+0.007		4.12	9	$16\frac{224}{1000}$		16.24
5	19.200		19.2	10	5+0.1+ 0.001		8 + 0.009

Example 2: - Complete the following

1	Select the largest number: 1.49 , 1.28 , 1.3 , 1.055 , 1.44 ....
2	Determine the smallest number: 2.102 , 2.401 , 2.14 , 2.199 ....
3	Ascending order: 1.49, 1.28, 1.3, 1.055, 1.44, 1.341 .... ,............. ,.... .... ,.............. ,............ ,...........
4	Descending order: 2.102, 2.401, 2.14, 2.199, 2.11, 2.7 ...., ..., ..., ..., ..., ...
5	Ascending order: 4.136 , 4.157 , 4.150 , 4.015 ...., ..., ..., ...
6	Descending order: 80.21 , 80.012 , 8.102 , 80.09 ...., ..., ..., ...

Exercises (3)

Example 1: - Compare using (= , < , >)

1	4.63		4.7	8	32.099		$32\frac{7}{10}$
2	53.156		16.999	9	Nine thousands		9.999
3	6.059		6.06	10	$8\frac{45}{1000}$		8.06
4	8+0.3+0.05		8.35	11	$74\frac{24}{1000}$		74.24
5	46.537		46.6	12	7+0.4+ 0.008		7 + 0.47
6	0.3		0.7	13	0.5		0.07
7	10.8		10.2	14	7.53		7.51

Example 2: - Complete the following

1	Select the largest number: 4.63 , 4.72 , 4.5 , 4.032 , 4.53 ....
2	Select the smallest number: 6.367 , 6.134 , 6.25,6.614, 6.52 ....
3	Ascending order: 6.235 , 36.012 , 63.215 , 36.12 .... , ... , ... , ...
4	Ascending order: 7.136 , 7.157 , 7.150 , 7.015 .... , ... , ... , ...
5	Ascending order: 5.48, 5.9, 5.09, 5.368 .... , ... , ... , ...
6	Descending order: 67.45 , 67.025 , 67.208 , 67.08 .... , ... , ... , ...
7	Ascending order: 0.11, 0.25, 0.02, 0.3 ...., ..., ..., ...

the first unit Lesson (5) Rounding off decimals

• First: Approximation using the midpoint strategy:

To round the number 4.412 to the nearest tenth, we follow the steps

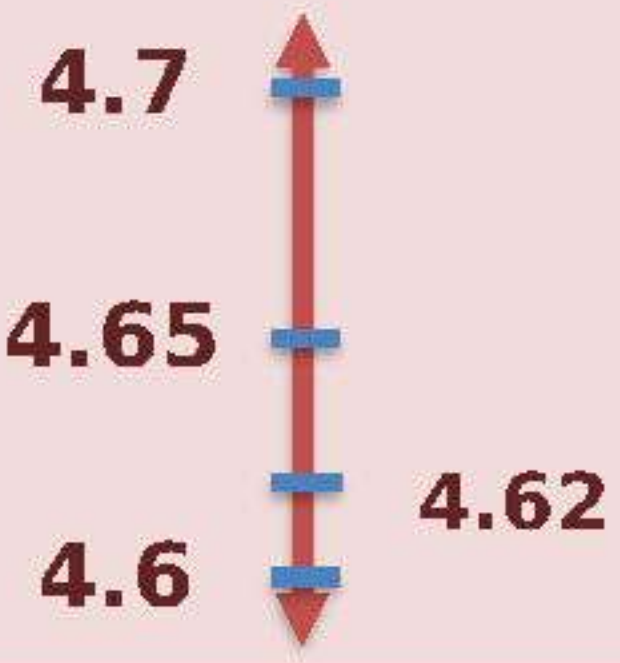
1- Determine the two numbers between which the number to be rounded lies:
The number 4.412 falls between 4.4 and 4.5

2- Determine the number in the middle of the space:
The number 4,450 is halfway between 4,400 and 4,500

3- Determine the location of the number to be rounded on the number line
4.450 < 4.412is located below the midpoint

4- Determine the number closest to the number 4.412, so we find that it is closer to 4.400
4.4 = 4.400 ≈ 4.412

Example (1): - Round using the midpoint strategy.

1	Round 4.62 to the nearest tenth ≈ 4.6 	3	Round 15.8 to the nearest whole number ………. ≈ 15.8 
2	Round 3.54 to the nearest tenth 3.54 ≈ ………. 	4	Round the number 1.277 to the nearest hundredth 1.277 ≈ ………. 

•Second: - Rounding using the rounding rule:

- Rounding rule
- We specify the number to the right of the field to be rounded, taking into account the following:
  - If the number (0, 1, 2, 3, 4) are stingy numbers, we do not add one, and the number goes down as it is.
  - If the number (5, 6, 7, 8, 9) are decent numbers, we add one to the number.
  - Put zeros in all fields before the field to be rounded.

* Note :- Rounding is used when we need an exact answer.

Example (2) Proximity using the approximation strategy

	the number	Rounding to the nearest	Rounding	estimate
(1)	534.87	tenths	534.8	500
(2)	5.25	tenths		
(3)	534.879	hundredth		
(4)	7.216	hundredth		
(5)	12.476	whole number		
(6)	7.2143	unit		
(7)	535.8769	thousandth		
(8)	12.4746	thousandth		
(9)	5.2925	thousandth		

Example (3): - Read and then answer	
1	Mazen wants to take a trip from Cairo to Wadi El Rayan, so if the distance between the two cities is 147.72 km, then round this distance to the nearest tenth. ....
2	Mazen stops during his travel every 73.255 km to eat his meal, rounding the distance to the nearest hundredth ....
3	Write 5 decimal numbers that can be rounded to the nearest tenth, so that the result is 41.8 ....

Exercises (4)

Example (1) Proximity using the approximation strategy

	the number	Rounding to the nearest	Rounding	estimate
(1)	24.726	tenths		
(2)	26.724	tenths		
(3)	167.849	hundredth		
(4)	53.389	hundredth		
(5)	36.727	whole number		
(6)	26.832	unit		
(7)	72.7825	thousandth		
(8)	36.3288	thousandth		
(9)	56.8625	thousandth		
(10)	34.3763	thousandth		
(11)	$74\frac{21}{100}$	tenths		
(12)	$7\frac{341}{1000}$	hundredth		

Example (2): - Read and then answer

1	Mazen wants to take a trip from Cairo to Wadi El Rayan, so if the distance between the two cities is 279.42 km, then round this distance to the nearest tenth. ....
2	Mazen stops during his travel every 16.389 km to eat his meal, rounding the distance to the nearest hundredth ....
3	Write 5 decimal numbers that can be rounded to the nearest hundredth so that the result is 63.44 ....
4	The number is 43.74 rounded to the nearest tenth ....
5	The number 25.63 ≈ 25.6 rounded to the nearest...............
6	Rounding the number 4.527 to the nearest .... is 5
7	Rounding the number .... to the nearest tenth is 14.6

the first unit
Lesson (6 – 7)

Adding decimals and their applications

• to learn

- Find the product of 42.56 + 25.35
- Estimation using rounding
- Rounding to the nearest tenth: 42.6 + 25.4 = 68.0 = 68
- Estimate through the first digit from the left
  We write the first from the left as it is in both numbers, then we replace the rest of the numbers with zeros
  40 + 20 = 60

Example (1): - Estimation strategies through the first number from the left.			
1	0.92 + 2.57 = ...	3	0.9 + 2.5 = ...
2	6.63 + 74.4 = ...	4	8.25 + 43.7 = ...

Example (2): - Estimate using rounding to the nearest tenth.			
1	0.92 + 2.57 = ...	3	0.96 + 2.56 = ...
2	6.63 + 74.42 = ...	4	8.25 + 43.78 = ...

Example (3) Find the product

1	284.153 + 375.93 = ...	2	484.15 + 775.935 = ...	3	484.153 + 375.98 = ...	4	884.15 + 775.935 = ...
5	274.10 + 675.931 = ...	6	234.784 + 357.5 = ...	7	874.1 + 675.931 = ...	8	434.784 + 357.5 = ...

Example (4): - Find the product.			
1	256.56 + 874.349=	3	624.432 + 156.1 = ...
2	157.246 + 122.63 = ...	4	267.5 + 134.785 = ...

Example (5): - Read and then answer	
1	7 thousandths + 4 hundredths = ... thousandths Place value: .... hundredth .... thousandth
2	16 thousandths + 6 hundredths = ... thousandths Place value: .... hundredth .... thousandth
3	Muhammad walked 0.52 km on the first day and 0.2 km on the second day. Find the total ....
4	Souad saved 42.63 in the first week and 63.87 in the second week. What is the total amount she saved in the two weeks? Is it enough to buy a dress worth 130 pounds? ....

- **the benchmark decimals strategy**

the benchmark decimals for 0.1, 0.01, ... is (0)

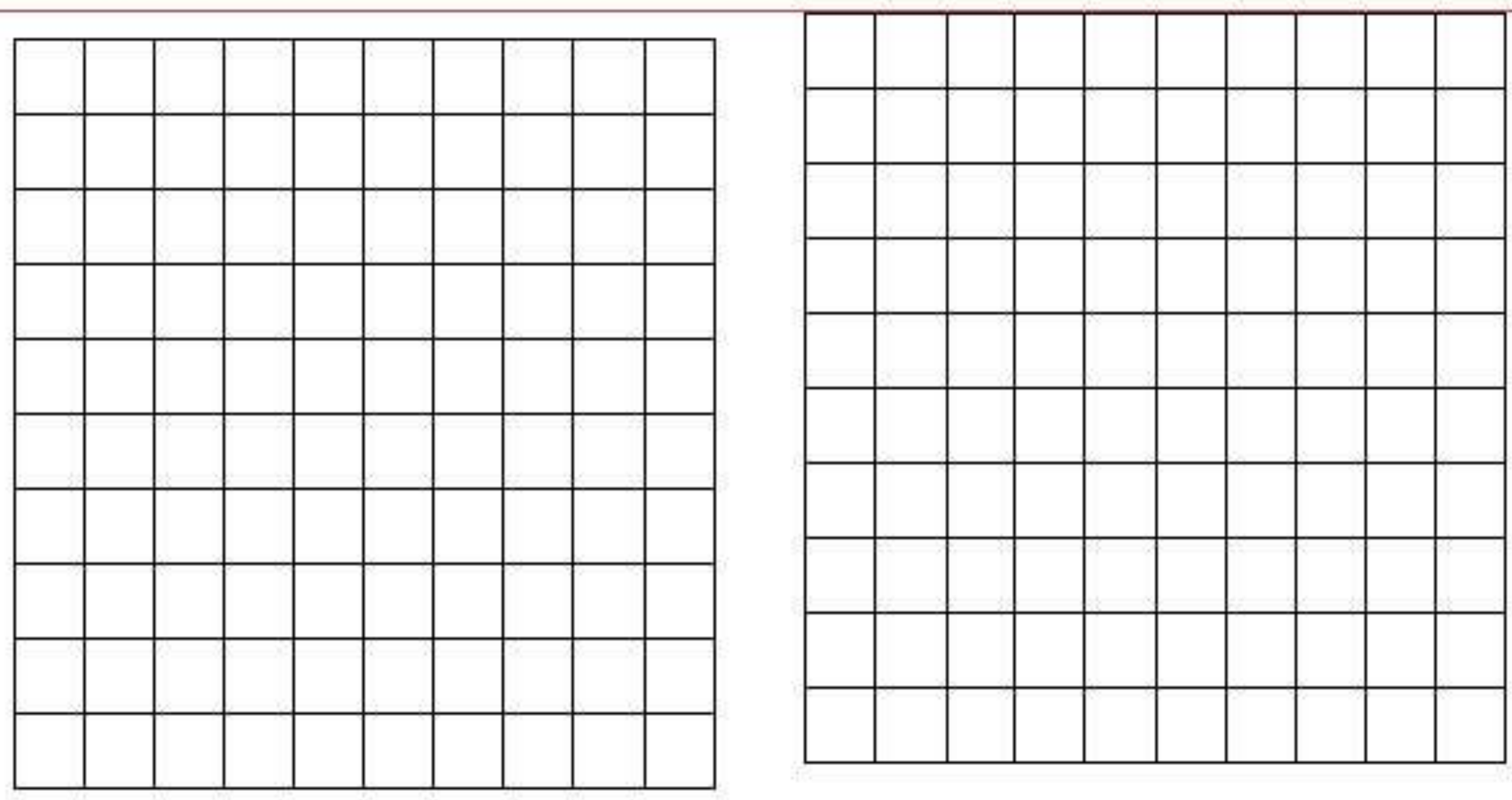
the benchmark decimals for 0.50, 0.500, ... is (0.5)

the benchmark decimals for 0.9, 0.99,.......... is (1)

Example (6): - Read and then answer	
1	the benchmark decimals for 0.9 is ....
2	the benchmark decimals for 0.01 is ....
3	the benchmark decimals for 0.55 is ....

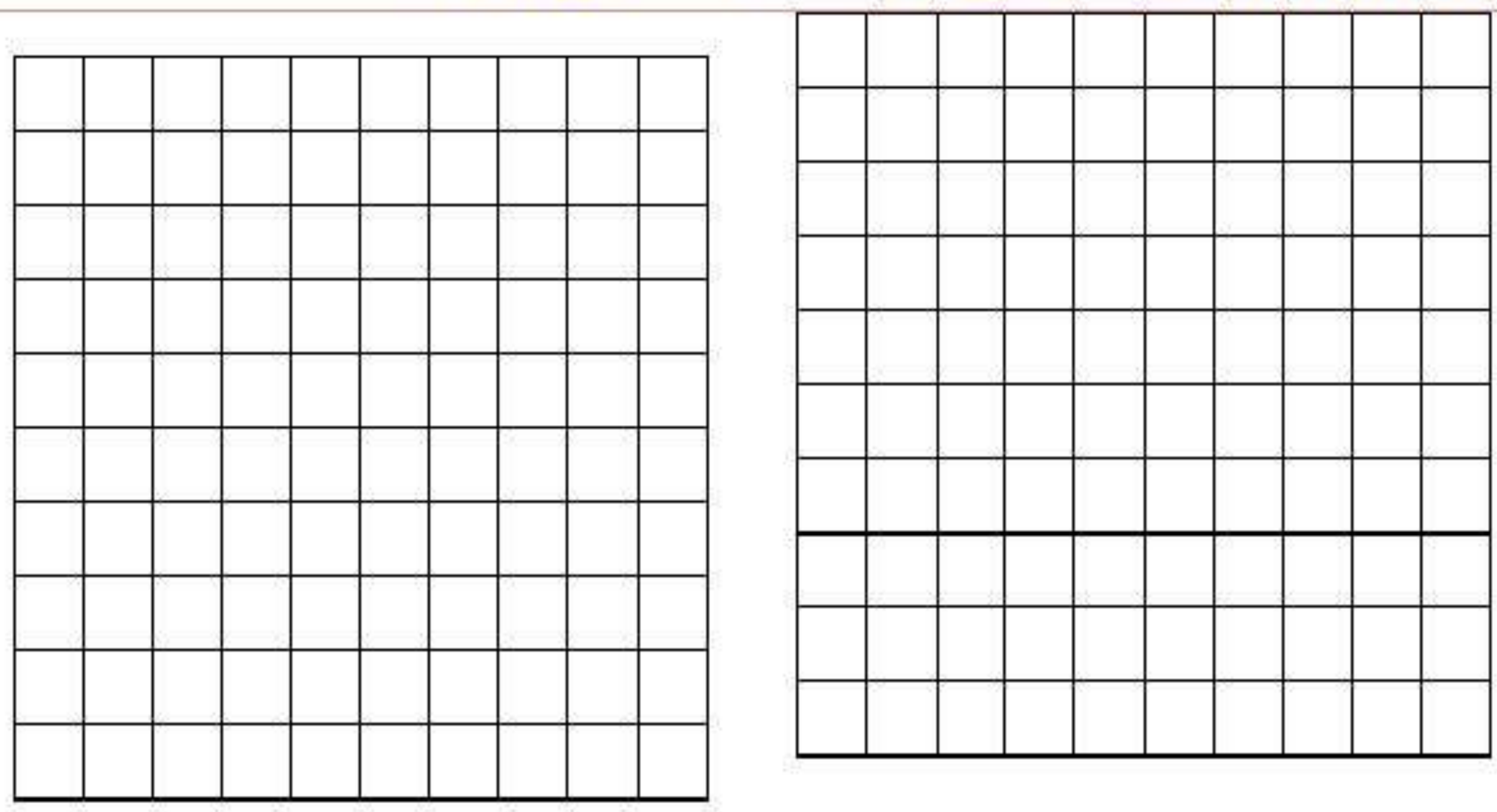
Example (7): - Read and then answer

1



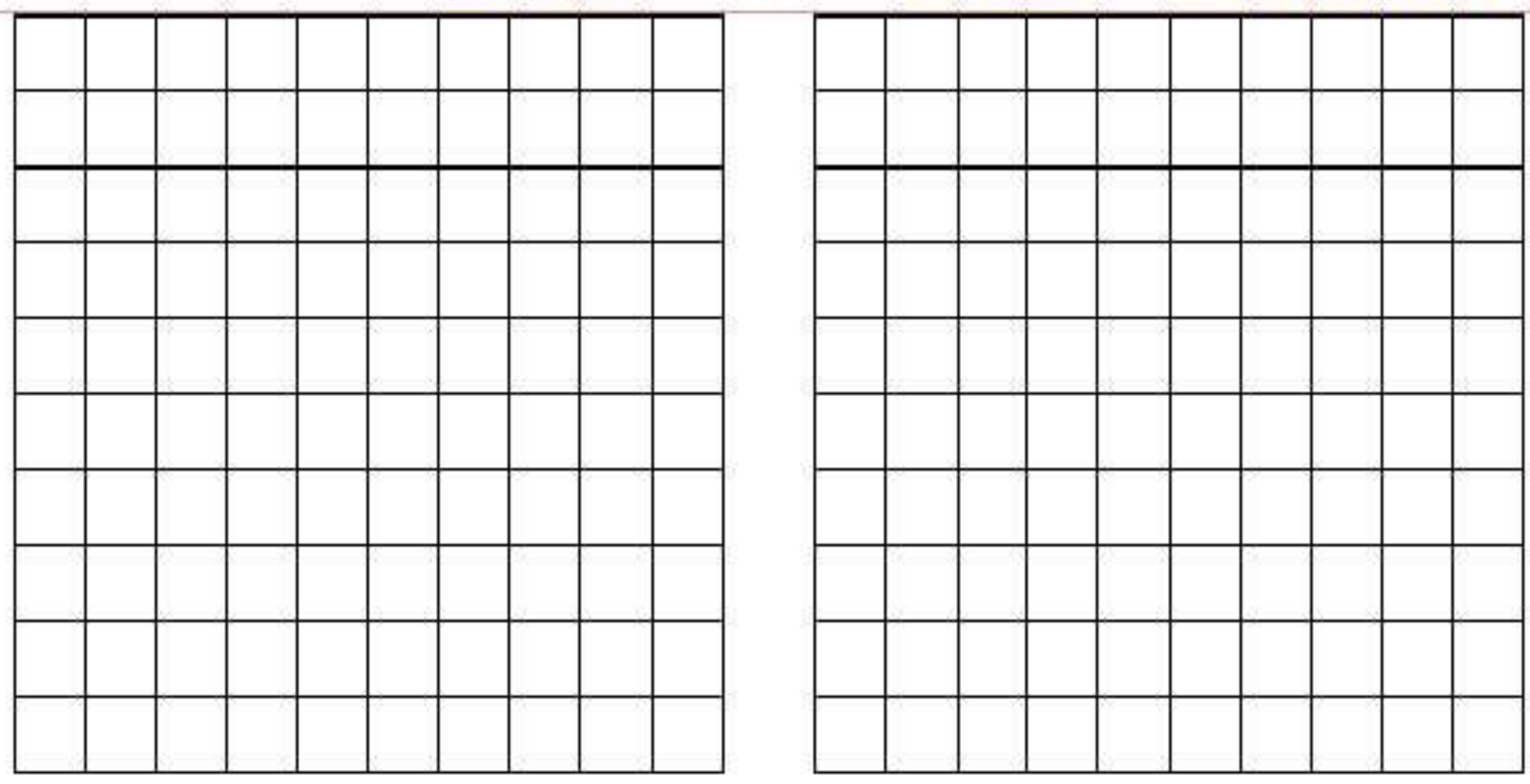
0.43 + 0.24 =..........

2



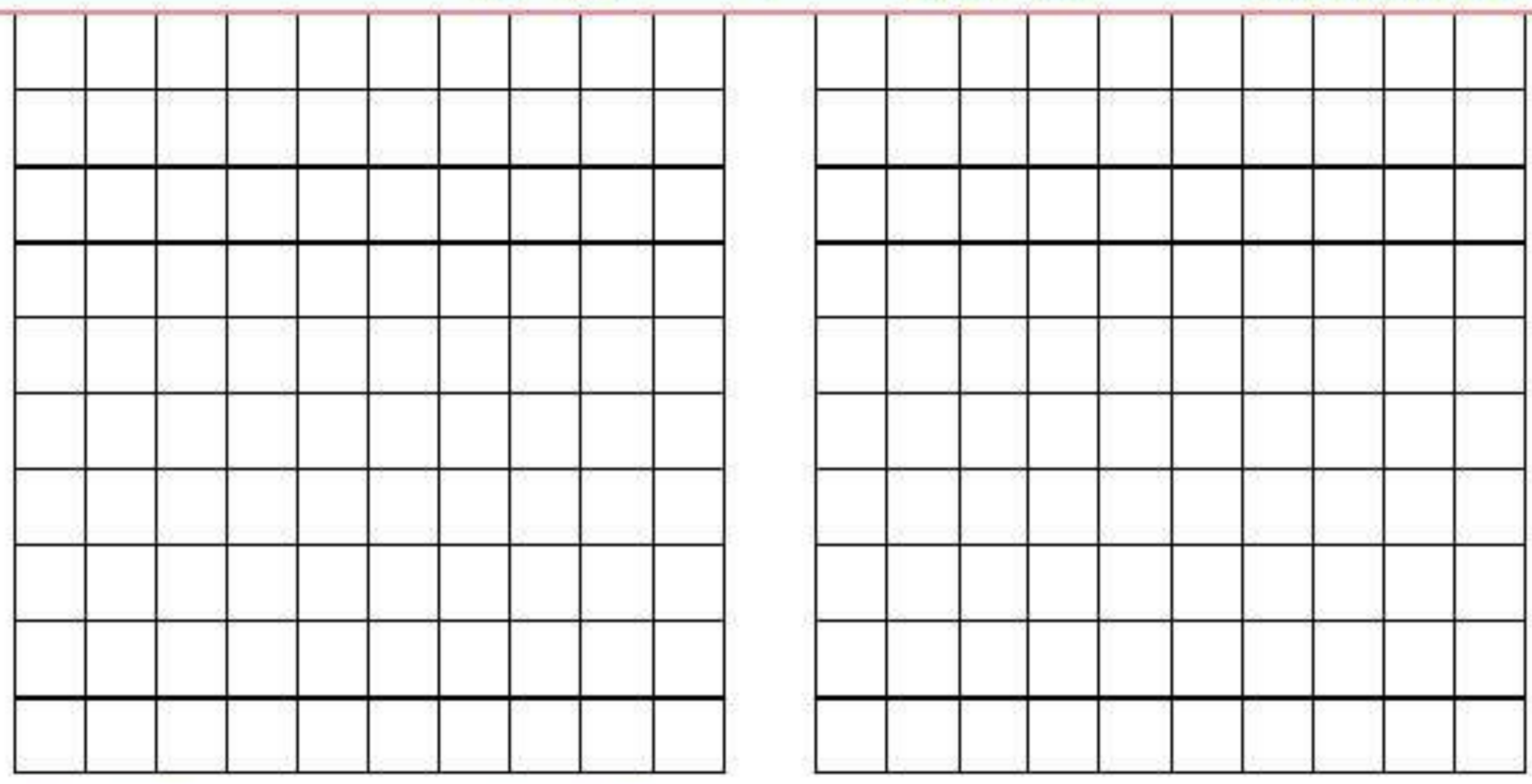
1.52 + 0.13 =..........

3



1.25 + 0.15 =..........

4



1.53 + 0.12 =..........

Exercises (5)

Example (1): - Estimation strategies through the first number from the left.			
1	58.34 + 89.346 = ...	3	0.6 + 36.5 = ...
2	93.63 + 25.4 = ...	4	73.61 + 52.7 = ...

Example (2): - Estimate using rounding to the nearest tenth.			
1	0.63 + 76.87 = ...	3	45.48 + 2.73 = ...
2	26.46 + 83.25 = ...	4	53.93 + 25.67 = ...

Example (3) Find the product							
1	273.278 + 825.52 = ...	2	54.98 + 230.407 = ...	3	257.783 + 146.53 = ...	4	916.62 + 356.278 = ...
5	379.7 + 714.743 = ...	6	256.298 + 694.4 = ...	7	725.7 + 267.389 = ...	8	285.267 + 142.8 = ...

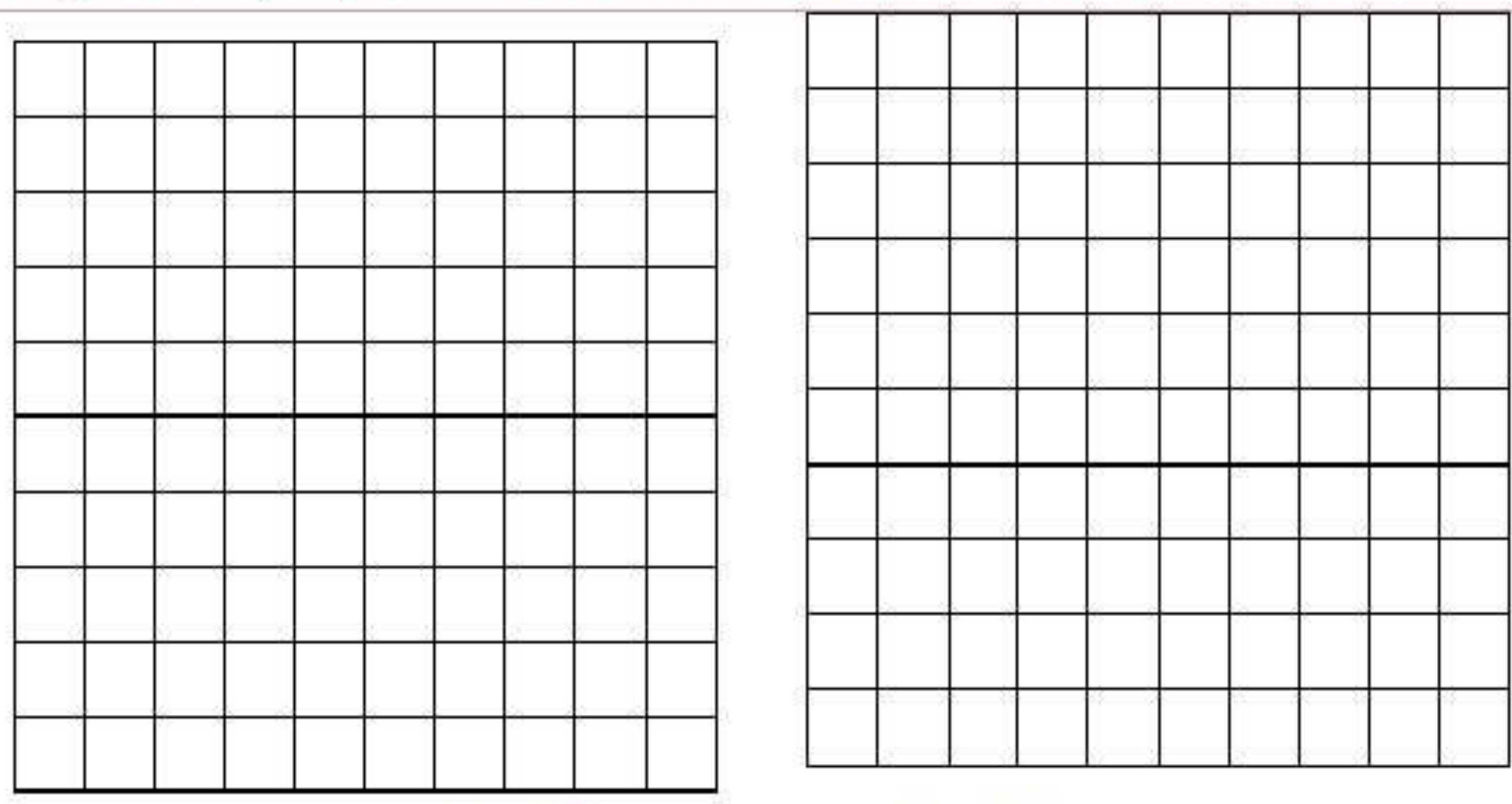
Example (4): - Find the product.			
1	258.26 + 279.944=	3	402.25 + 906.7 = ...
2	706.267 + 278.63 = ...	4	626.6 + 237.268 = ...

Example (5): - Read and then answer

1	5 thousandths + 3 hundredths = ……………….. thousandths Place value: …………. hundredth ………….. thousandth
3	Muhammad walked 0.25 km on the first day and 0.7 km on the second day Find the sum ……………………………………………………………………………
4	Souad saved 53.62 in the first week and 78.24 in the second week. What is the total amount she saved in the two weeks? Is it enough to buy a dress worth 130 pounds? ……………………………………………………………………………

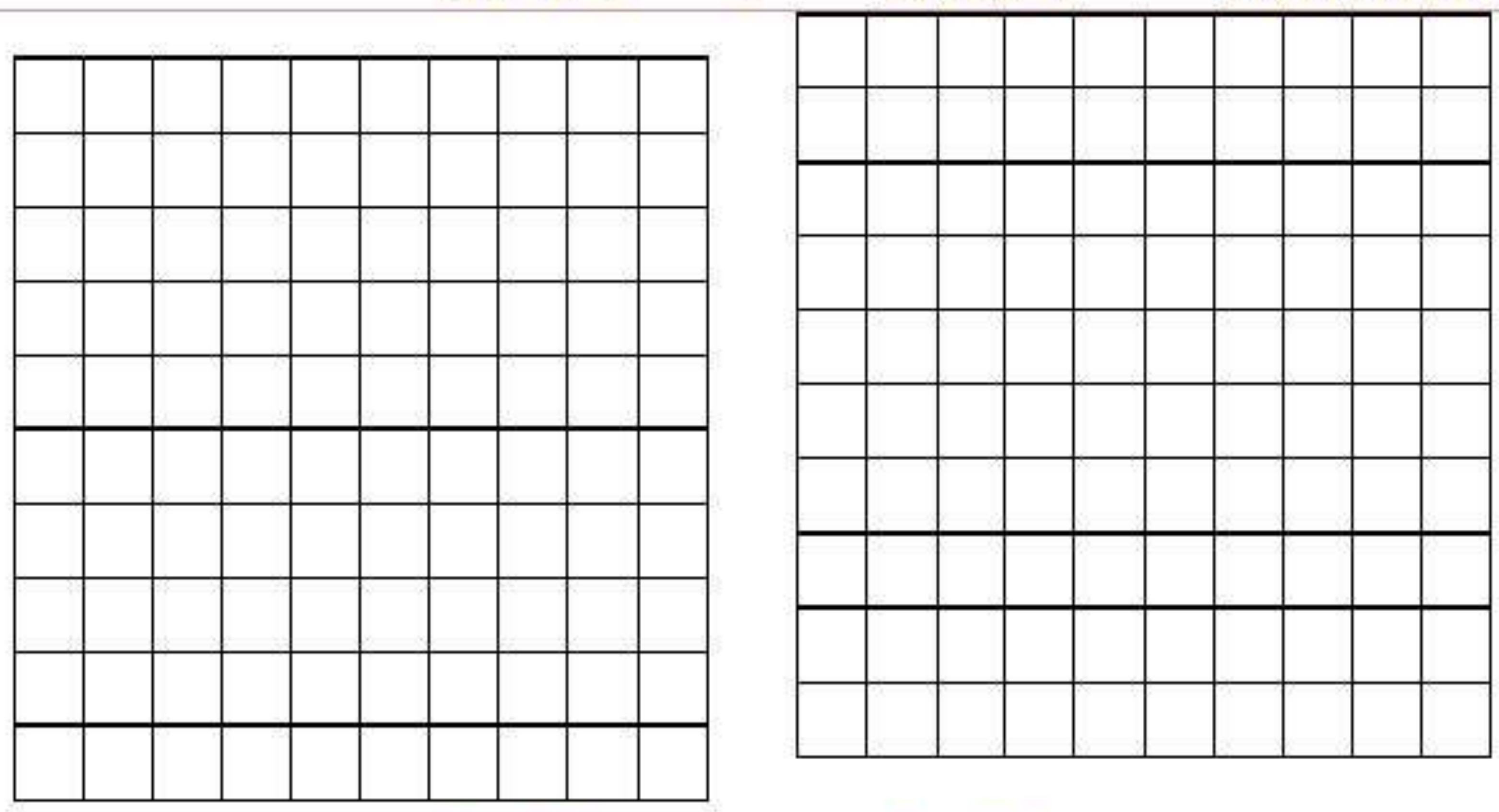
Example (6): - Read and then answer

1



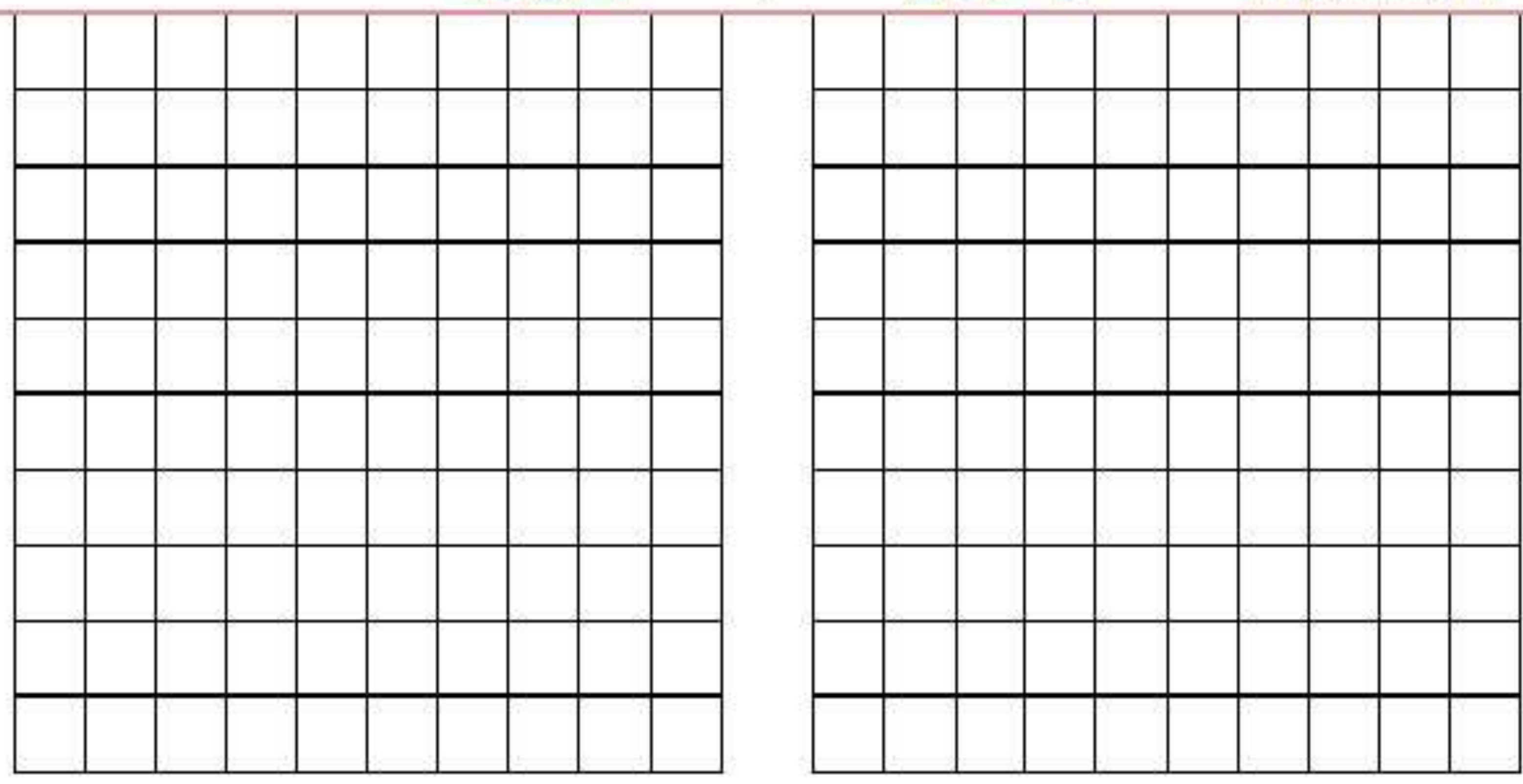
0.42 + 0.62 =……….

2



1.62 + 0.14 =……….

3



1.14 + 0.34 =……….

the first unit
Lesson (8 – 10)

Subtraction of decimals and their applications

• to learn

- Find the product of 52.89 - 42.56
  - Estimation using rounding
- Rounded to the nearest tenth 10.3 = 42.6 - 52.9
  - Estimate through the first digit from the left
- We write the first from the left as it is in both numbers, then we replace the rest of the numbers with zeros
  50.00 - 40.00=10
- Estimation using the benchmark decimals strategy (0,0.5, 1)
- .52 - 42.56 = 52.0 - 42.5 = 9.5

Example (1): - Estimation strategies through the first number from the left.

1	8.92 - 2.57 = …………………	3	37.9 - 2.5 = …………………
2	75.63 - 74.4 = …………………	4	7.23 - 3.7 = …………………

Example (2): - Estimate using rounding to the nearest tenth.

1	8.92 - 2.57 = …………………	3	7.96 - 2.56 = …………………
2	98.63 - 74.42 = ………………	4	64.25 - 43.78 = ………………

Example (3) Find the product

1	484.13 - 375.938 ……………	2	583.173 - 175.6 ……………	3	884.156 - 775.95 ……………	4	582.158 - 255.4 ……………
5	874,103 - 675.9 ……………	6	761.1 - 715.628 ……………	7	434.74 - 357.578 ……………	8	974.107 - 526 ……………

Example (4): - Find the product.

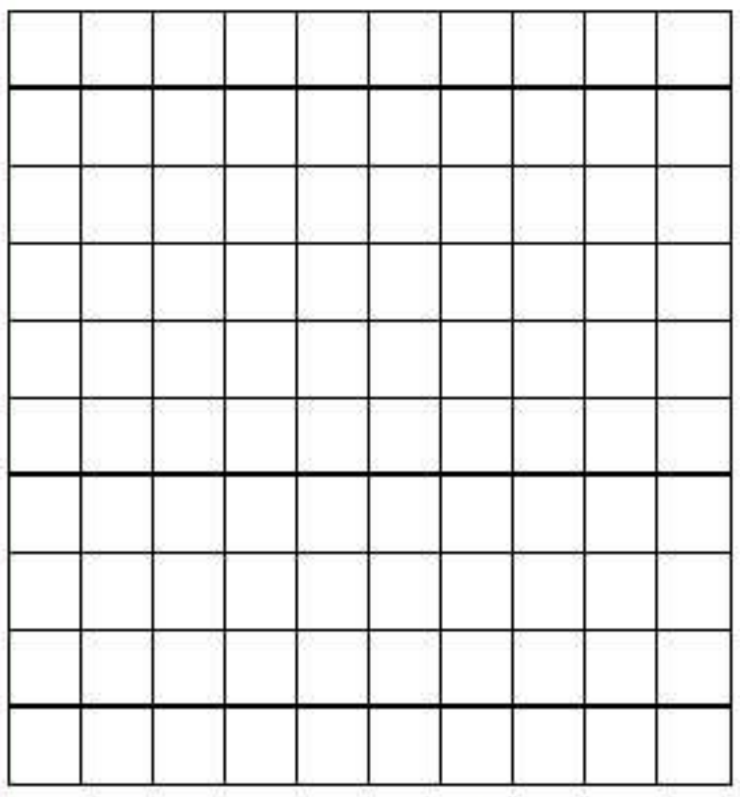
1	836.246 - 357.42 = ...	3	957.573 - 634.78 = ...
2	987.48 - 924.744 = ...	4	500.5 - 263.157 = ...

Example (5): - Read and then answer

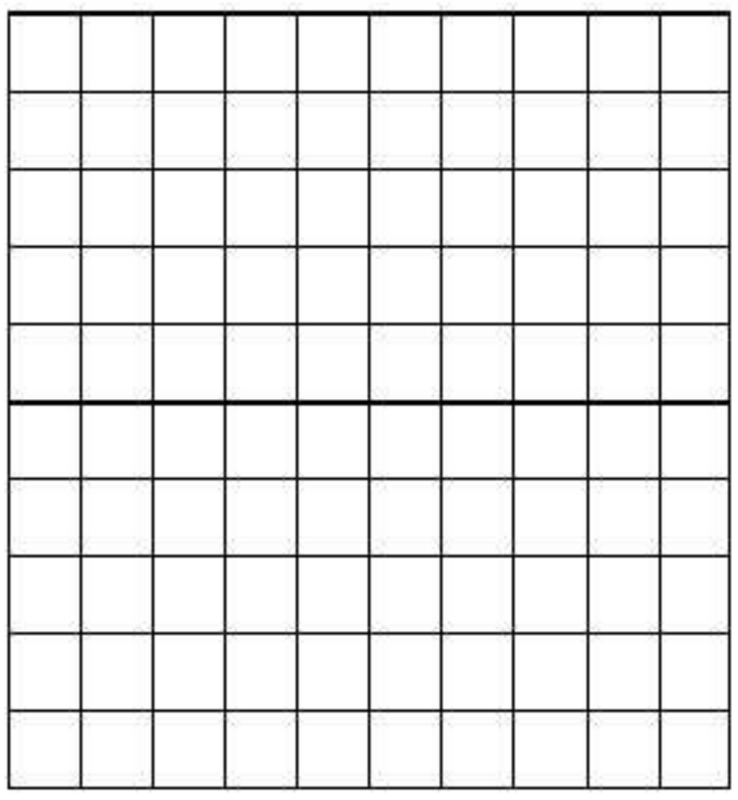
1	69 thousandths - 36 thousandths = ... thousandths Place value: ....hundredth .... thousandth
2	6hundredths - 34 thousandths = ... thousandths Place value: .... hundredth .... thousandth
3	Muhammad has 1.34 kg of rice and he ate 0.53 kg of them, how much is left with him? ....
4	Souad saved 42.63 pounds and spent 23.87 pounds of it. How much is left with her? ....

Example (6): - Read and then answer

1

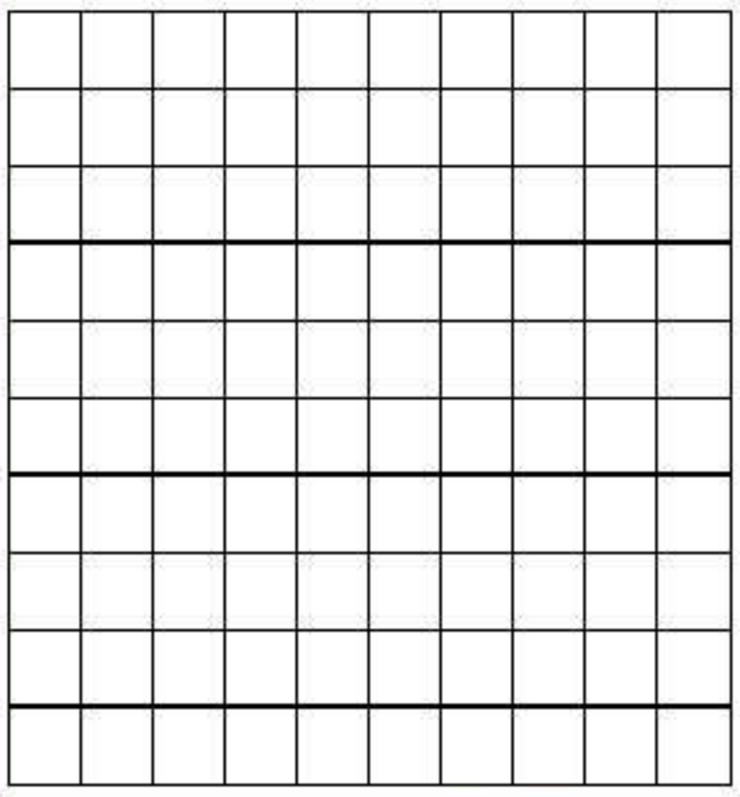


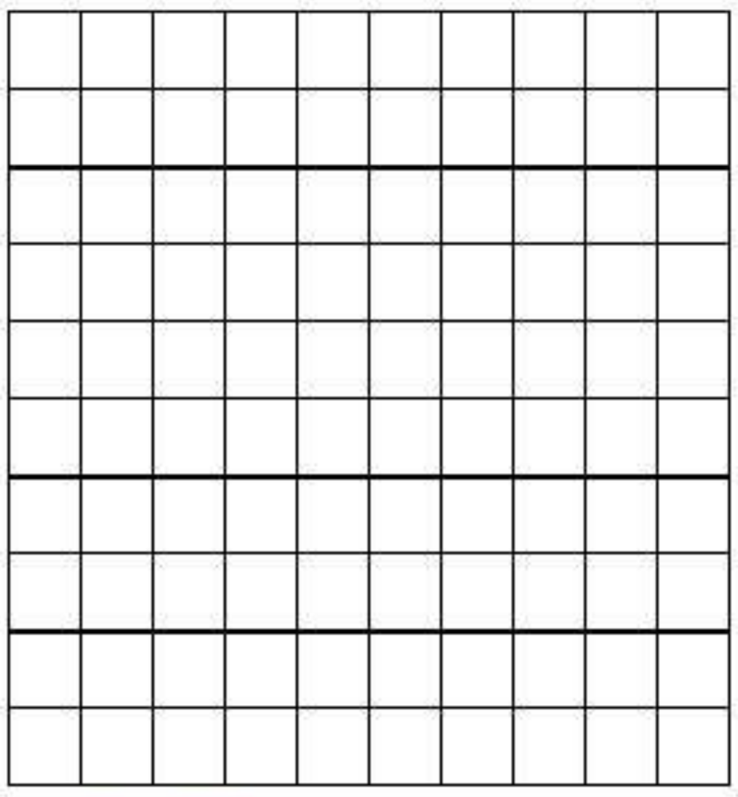
0.43 - 0.24 =..........



0.63 - 0.15 =..........

2





1.5 - 1.13 =..........

Exercises (6)

Example (1): - Estimation strategies through the first number from the left.			
1	52.2 - 6.26=	3	24.9 - 5.98 = ...
2	63.24 - 51.8 = ...	4	36.51 - 6.3 = ...

Example (2): - Estimate using rounding to the nearest tenth.			
1	72.36 - 7.97 = ...	3	6.138 - 2.1 = ...
2	284.63 - 45.37 = ...	4	96.78 - 36.2 = ...

Example (3) Find the product							
1	923,153 - 574,353 = ...	2	528,624 - 153,780 = ...	3	256.234 - 166.35 = ...	4	257.361 - 236.8 = ...
5	293,159 - 173,038 = ...	6	256,634 - 216,724 = ...	7	626.22 - 164.278 = ...	8	168.167 - 137 = ...

Example (4): - Find the product.			
1	936.56 - 874.349=	3	267.5 - 134.785 = ...
2	432.624 - 156.1 = ...	4	157.246 - 122.64 = ...

Example (5): - Read and then answer	
1	72thousandths - 39 thousandths = ... thousandths Place value: .... hundredth .... thousandth
2	8hundredths - 45 thousandths = ... thousandths Place value: .... hundredth .... thousandth
3	Muhammad has 7.36 kg of rice and he ate 0.26 kg of them, how much is left with him? ....
4	Souad saved 27.63 pounds and spent 23.87 pounds of it. How much is left with her? ....

the first unit
Lesson (12)

Word problems on decimals

Example (1): - Read and then answer	
1	Salma went to the market and bought 2.75 kg of potatoes, and 1.2 kg of potatoes of meat. Find the sum of the two masses of what she bought. ....
2	A truck carrying 32.52 tons of fruits and 15.96 tons of vegetables, the total number of tons in the truck. ....
3	A biologist discovered two types of snakes, the length of the first type is 345.35 cm and the length of the second type is 261.6 cm. What is the difference between the lengths of the two types? ....
4	Two pieces of cloth, the length of the first piece is 8.24 meters.The length of the second piece is 4.75 meters. Find the difference between the two pieces. ....
5	With Malak 13.75 pounds, and with her brother Bassem 24.25 pounds, find the sum of the two. ....

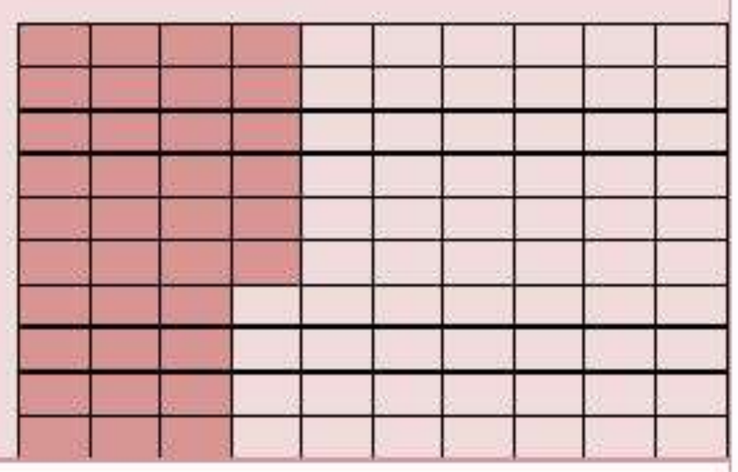
6	Ahmed runs a distance of 3.13 km every day, and his friend Sameh runs a distance of 5.51 km. Find the sum of the two distances. ....
7	Rashad and his father went on a fishing trip to Lake Nasser. They each caught a giant cat fish. The mass of the first fish reached 53.25 kg, and the mass of the second fish reached 46.8 kg. What is the mass of the two fish together? ....
8	The total length of the Tahya Misr Bridge is 16.7 km. Salem rode his bike along the bridge walkway for a distance of 3.25 km before the tire leaked. How many kilometers does he still need to walk? ....

Exam (unit one)

Example (1) Choose the correct answer

(1)	Which of the following numbers has the place value of the digit 3 in ten?						
(أ)	39.24	(ب)	43.175	(جـ)	150.3	(د)	372.59
(2)	100+20+0.05+0.009 = ...						
(أ)	120.59	(ب)	12.059	(جـ)	120.059	(د)	1,200.59
(3)	Which of the following decimal numbers is the largest ?						
(أ)	425.002	(ب)	425.02	(جـ)	425	(د)	425.2
(4)	Rounding the decimal number 259.51 to the nearest integer is................						
(أ)	260	(ب)	259.5	(جـ)	259	(د)	250
(5)	Forty-five thousandths.............						
(أ)	450.000	(ب)	45.000	(جـ)	0.450	(د)	0.045
(6)	When dividing a decimal number by 10, the value of the number is............						
(أ)	decrease	(ب)	increase	(جـ)	do not change	(د)	multiply
(7)	60.33 – 12.58 = ...						
(أ)	74.75	(ب)	47.75	(جـ)	72.91	(د)	47.57

Example (2): - Complete

1	If the value of the digit 7 is 0.007, then the place value of the digit is..........
2	9.659 ≈ .... to the nearest thousand
3	The product of the summation estimate: 39.9 + 26.32 is......
4	When multiplying the decimal number 5.8 by the number 10, the value of the digit 8 changes from 0.8 to.............
5	$\frac{574}{1000}$ = ...
6	The decimal fraction that expresses the shaded part in the corresponding form is .... 
7	The distinguishing number to the decimal fraction 0.499 is..
8	9 ones and 6 thousandths = ... (standard form)

Example (3) Choose the correct answer

(1)	5.9 .... 6.03						
(أ)	>	(ب)	<	(جـ)	=	(د)	غير ذلك
(2)	The value of the digit 3 in the number 82.238 is..........						
(أ)	30	(ب)	0.3	(جـ)	0.03	(د)	0.003
(3)	0.3 + 0.08 = ...						
(أ)	0.38	(ب)	0.11	(جـ)	1.1	(د)	3.8
(4)	2hundredths - 2 thousandths = ...						
(أ)	0.18	(ب)	18	(جـ)	0	(د)	0.018
(5)	The number in the ones place of the decimal number 56.79 is...............						
(أ)	5	(ب)	6	(جـ)	9	(د)	7
(6)	The verbal form of the number 1.002 is......................						
(أ)	One, two parts out of ten	(ب)	two	(جـ)	One, and two parts of a thousand	(د)	One, two parts out of a hundred
(7)	...........< 6.319						
(أ)	6.402	(ب)	7.109	(جـ)	6.309	(د)	6.91

Example (4): - Complete as required

Two bars of gold, the mass of the first is 3.89 kg and the mass of the second is 6.008 kg Calculate the sum of the masses of the two alloys together?	1
Saeed bought a pair of pants and a shirt, so if the price of the pants was 58.75 pounds, and the total amount Saeed paid was 130 pounds, what is the price of the shirt?	2
Basma estimated the subtraction result from 54.789 - 45.106 with a value of 8, while Hossam estimated the value with a value of 10. Find the actual output, then determine which of the two estimates is closer to the actual output?	3
Ascending order 581.1 , 243.266 , 325.7 , 935.14 .... ، .... ، .... ،	4

Unit two
Lesson (1 – 3)

Mathematical expressions, equations and variables variables in equations

variable
- We use letters or symbols to represent the unknown value in an equation
- 35.25 - A = 22.41 in the equation is called variable A

Mathematical sentence
- A sentence containing numbers, symbols and mathematical operations.
For example: 7.5 = 4.5 +3 or 24.26 + A

Mathematical expression
- It is a mathematical sentence that does not have an equal sign =
Such as: 4.5 + 63.7 or 24.26 + A

equation
- It is a mathematical sentence with an equal sign =
- Ex: A – 25.6 = 6.3

Solve the equation
- It means finding the value of the unknown (symbol or letter) that the equation contains
- 46.23 + A = 54.14
  A = 54.14 - 46.23
  A = 7.91

Example (1) Determine which of the following is an equation or a mathematical expression:

1	710 + g	3	6.256 + a = 8.526 ....
2	a – 4.012 = 9.103	4	x + 52.145 ....

Example (2) Select the variable and find the solution to the equation:

1	7.1 + g = 9.3 The variable is................. g = ...	3	9.256 - a = 8.56 The variable is................. a = ...
2	a – 4.012 = 9.13 The variable is................. a = ...	4	x + 52.15 = 73.513 The variable is................. x = ...

Example (3) Using the bar model, find the solution to the equation in each of the following:

1

all	
part	part

- If you need all addition
- If you need a part Subtraction

2

56,874 + a = 104,309

96,518	
x	53,924

x = 96,518 - 53,924

x = 42,594

Note: Addition becomes subtraction

3

b - 615,283 = 99,714

b	
615,283	99,714

b = 615,283 + 99,714

b = 714,997

Note: Subtraction becomes addition

4

356,128 - c =115,604

356,128	
c	115,604

c = 356,128 - 115,604

c = 240,524

Note: minus symbol It stays minus

Example 4: - Complete the following

1 Said saved an amount of money 65.203 pounds, and Fayrouz saved an amount of money 47.429 pounds Find the sum of what they have.

(Write an equation that expresses the previous situation and solve it)

....

....

....

....

2	Malak's savings are 552.641 pounds, while Muhammad's savings are 452.252 pounds, find the difference between them. (Write an equation that expresses the previous situation and solve it) …………………………………………………………………… …………………………………………………………………… …………………………………………………………………… ……………………………………………………………………
3	With Sameh 25.75 pounds, he bought a ball that cost 12.25 pounds. Find what's left with him (Write an equation that expresses the previous situation and solve it) …………………………………………………………………… …………………………………………………………………… …………………………………………………………………… ……………………………………………………………………
4	Write a word problem that expresses the following equation: Equation 3.5 + X = 10 …………………………………………………………………… …………………………………………………………………… ……………………………………………………………………

Exercises (1)

Example (1) Determine which of the following is an equation or a mathematical expression:

1	23.5 + R	2	52.26 + W = 255.52 ....
3	a – 6.407	4	86.12 - a = 26.16 ....

Example (2) Select the variable and find the solution to the equation:

1	52.12 + g = 89.3 The variable is................ g = ...	3	86.12 - a = 26.16 The variable is................ a = ...
2	a – 6.407 = 5.31 The variable is................ a = ...	4	x + 14.79 = 41.7 The variable is................ x = ...

Example (3) Using the bar model, find the solution to the equation in each of the following:

1. R + 25.74 = 56.783

56.783	
25.74	R

R = ...

R = ...

2. 15.72 + a = 53.167

53.167	
x	15.72

x = ...

x = ...

3. b – 46.272 = 167.12

b	
167.12	46.272

b = ...

b = ...

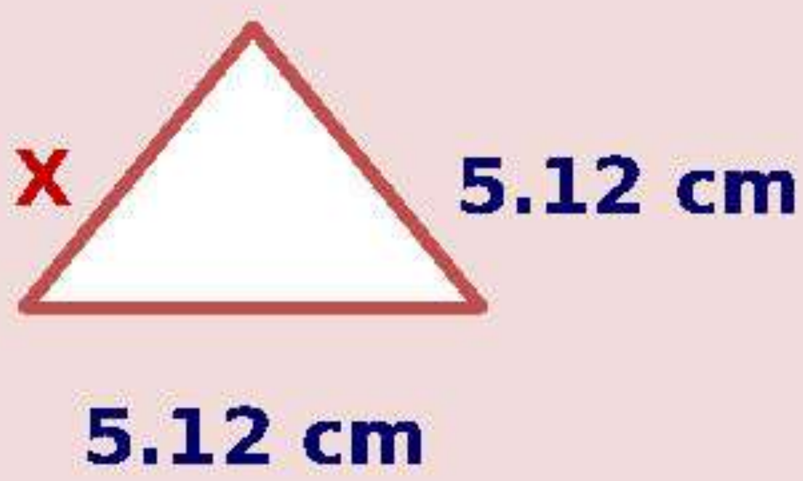
4. 624.167 - c =236.27

624.167	
c	236.27

c = ...

c = ...

Example 4: - Complete the following	
1	Said saved an amount of money 73.178 pounds, and Fayrouz saved an amount of money 36.278 pounds Find the sum of what they have. (Write an equation that expresses the previous situation and solve it) ....
2	Malak's savings are 623.724 pounds, while Muhammad's savings are 236.957 pounds, find the difference between them. (Write an equation that expresses the previous situation and solve it) ....
3	With Sameh 62.71 pounds, he bought a ball that cost 26.26 pounds. Find what's left with him (Write an equation that expresses the previous situation and solve it) ....
4	Write a word problem that expresses the following equation: Equation $7.5 + X = 12$ ....
5	Write a word problem that expresses the following equation: Equation $15.5 - X = 13$ ....

6	Bassem saw a turtle that was 0.78m long, and Jana saw a turtle whose length was 0.58m longer than the turtle that Bassem saw. What is the length of the turtle that Jana saw? (Write an equation that expresses the previous situation and solve it) …………………………………………………………………… …………………………………………………………………… …………………………………………………………………… ……………………………………………………………………
7	In a bag, a bottle of water with a mass of 1.5 kg and books with a mass of 2.254 kg are in a bag And a meal. If the mass of the bag when it is full is 4.526 kg, what is the mass of the meal? (Write an equation that expresses the previous situation and solve it) …………………………………………………………………… …………………………………………………………………… …………………………………………………………………… ……………………………………………………………………
8	 Perimeter of a triangle = 15.54 cm Find the missing side length The equation …………………………………… …………………………………… …………………………………… …………………………………… …………………………………… ……………………………………

Unit two
Lesson (4 - 5)

Factoring a number into prime factors greatest common factor

• Method of finding the common factor

• We find the factors of each of the numbers 14 and 21
The factors of 21 are 1, 3, 7, and 21
The factors of 14 are 1, 2, 7, and 14
• We determine the common factors of the numbers
14 and 21 are 1 and 7
• We determine the greatest common factor (G C F) 14 and 21 is 7
• The common factor for all numbers is the integer one
• The common factor between a prime number and a non-prime number is the correct one unless one is a factor of the other

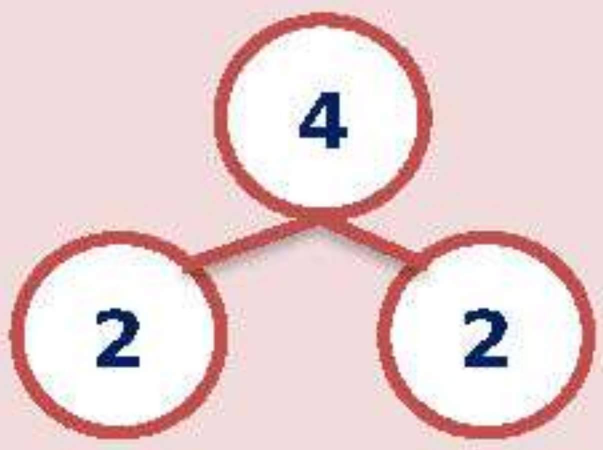
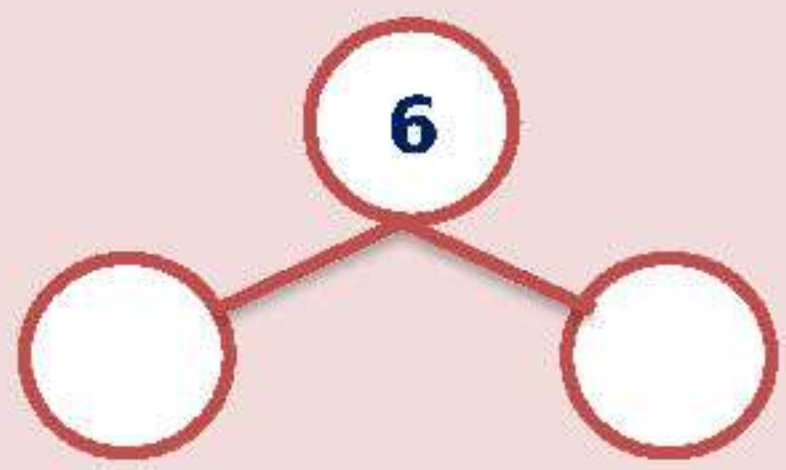
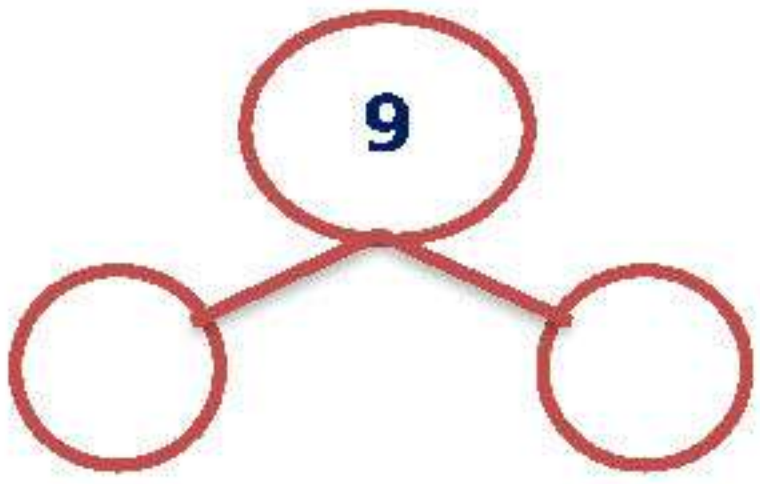
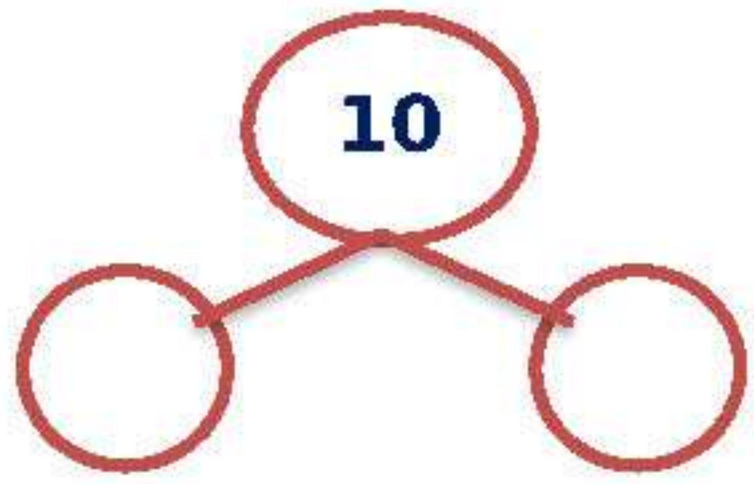
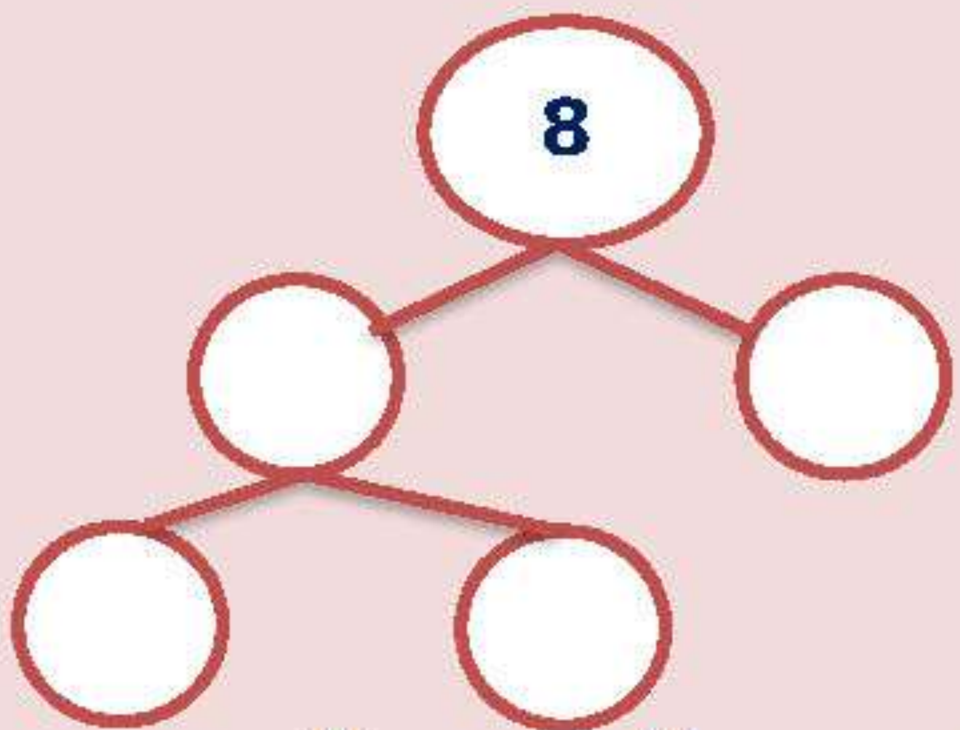
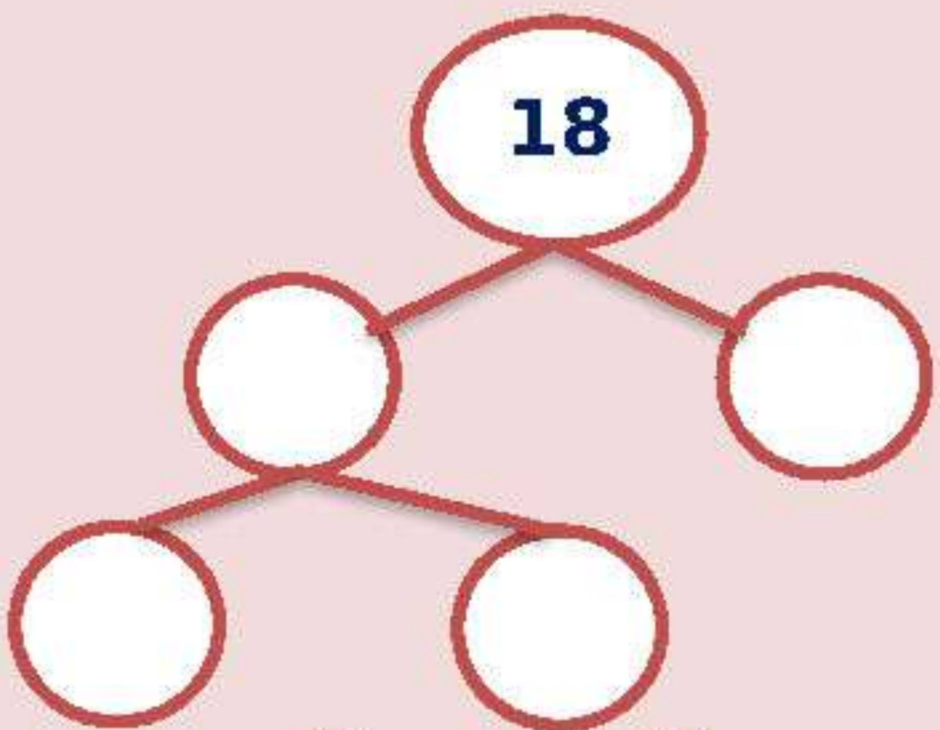
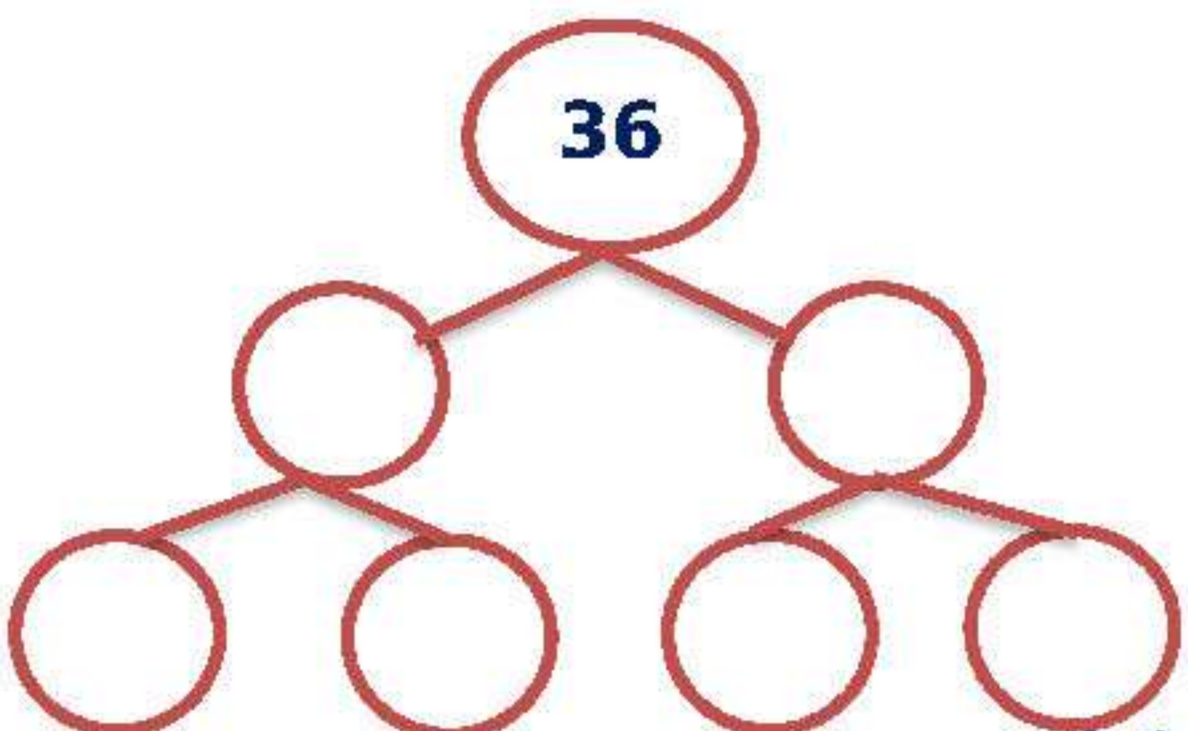
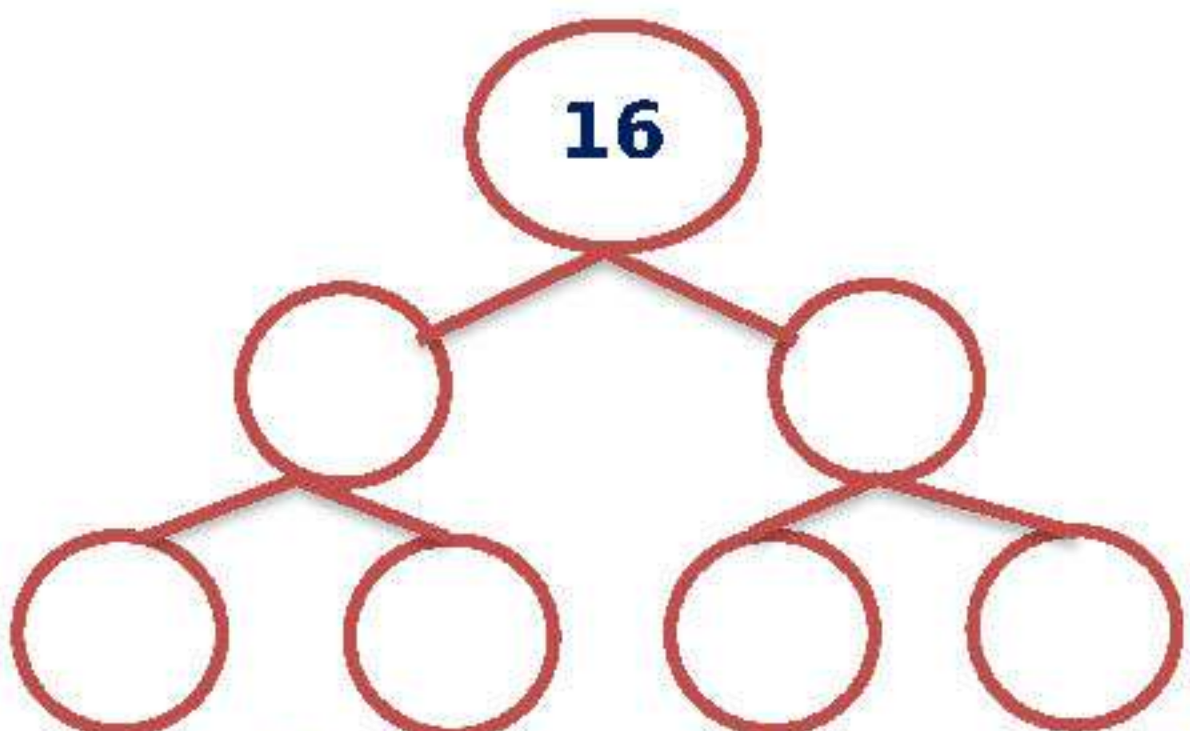
• prime numbers

- The first number: it is a number greater than one, and it has only two factors (the one and the number itself).
- Such as: 2 ، 3 ، 5 ، 7 ، 11 ، 17 ، 19 ، 23 ، 29 ....
- •All prime numbers are odd numbers except for 2 even numbers.
- The smallest even prime number is 2
- The smallest odd prime number is 3
- The one is not prime because it has only one factor.

•A non-primary number: it is a number greater than or

2	3	5	7	11
13	17	19	23	29
31	37	41	43	47
53	59	61	67	71
73	79	83	89	97

Example (1) Factor a number into its prime factors

1	 2 × 2 = 4	2	 ..... × ..... = 6
3	 ..... × ..... = 9	4	 ..... × ..... = 10
5	 ...... × ...... × ...... = 8	6	 ...... × ...... × ...... = 18
7	 .... ×.....×..... ×..... = 36	8	 .... ×.....×..... ×..... = 16

Example (2) Find the greatest common factor (G C F)			
1	35 = 5 × 7 25 = 5 × 5 G C F = 5	2	10 =................................ 15 =................................ G C F = ...
3	21 =....................... 14 =....................... G C F = ...	4	49 =................................ 35 =................................ G C F = ...
5	16 =....................... 8 =....................... G C F = ...	6	60 =................................ 48 =................................ G C F = ...
7	36 =....................... 42 =....................... G C F = ...	8	45 =................................ 63 =................................ G C F = ...

Example (3) Complete

1

Muhammad wanted to divide 25 pens and 35 notebooks into groups so that each group contains the same number of tools. What is the largest number of groups that can be formed for each type of tool so that each group has the same number.
And how many pens are in each group?
What is the number of chairs in each group?

25 = ...

35 = ...

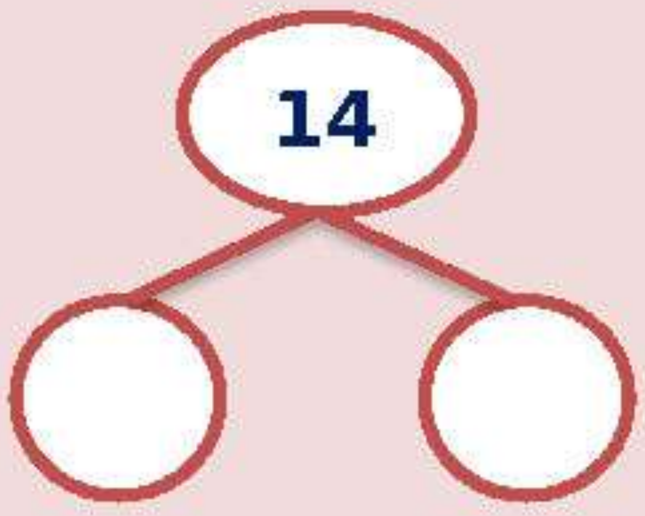
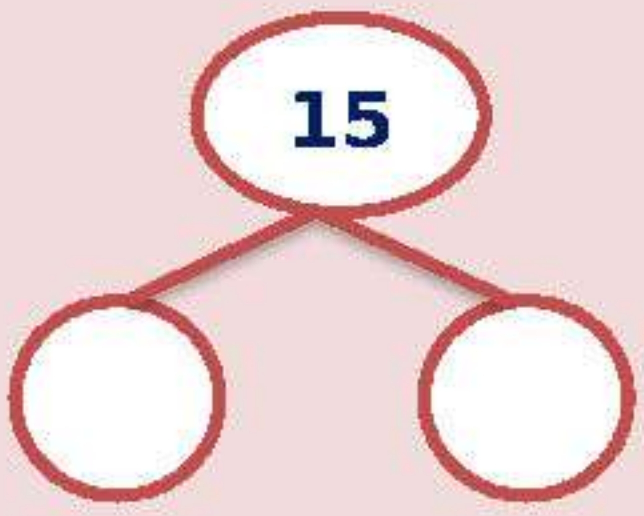
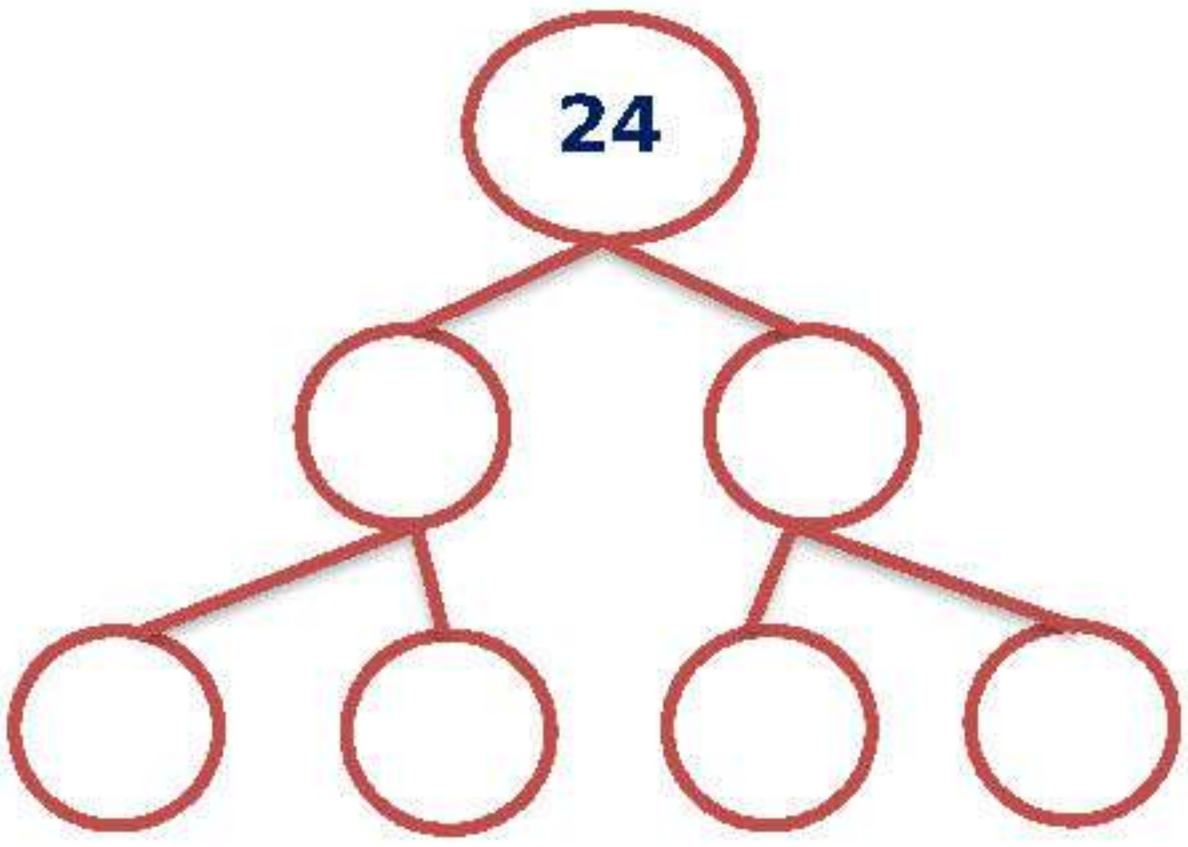
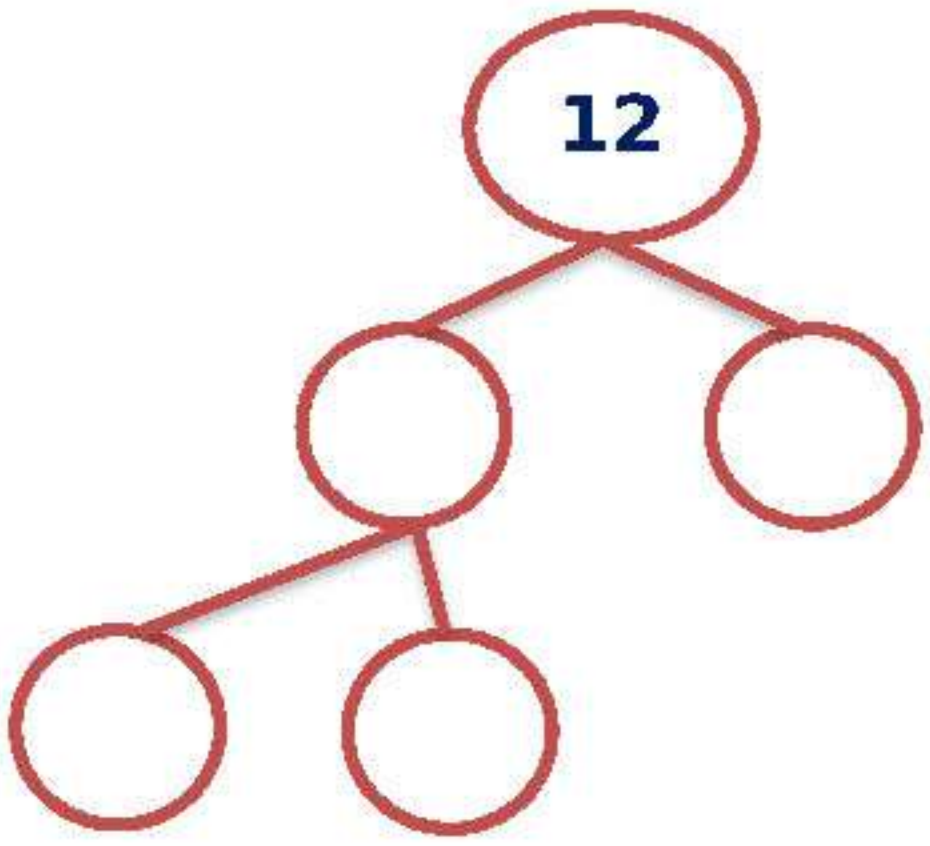
Number of groups (G C F) = ...

Number of pens in each group = ...

Number of notebooks in each group = ...

Exercises (2)

Example (1) Factor a number into its prime factors

1	 ..... × ..... = 14	2	 ..... × ..... = 15
3	 .... ×.....×..... ×..... = 24	4	 .....×..... ×..... = 12

Example (2) Factor a number into its prime factors

1	16 =............................... 8 =................................. G C F = ...	2	20 =................................ 15 =................................ G C F = ...
3	42 =....................... 32 =....................... G C F = ...	4	21 =................................ 28 =................................ G C F = ...

Example (3) Write down the factors of each number, then write the greatest common factor (G C F)	
1	The factors of the number 15 are …………………………………… The factors of 30 are……………….. …………………………………… The greatest common factor is…………….
2	The factors of the number 40 are …………………………………… The factors of the number 25 are …………………………………… The greatest common factor is…………….
3	The factors of 36 are……………….. ………………………………. The factors of the number 12 are …………………………………… The greatest common factor is…………….
4	The factors of the number 8 are …………………………………………… The factors of the number 14 are…………………………………… The greatest common factor is…………….

Example (4) Complete	
1	Muhammad wanted to divide 25 pens and 35 notebooks into groups so that each group contains the same number of tools. What is the largest number of groups that can be formed for each type of tool so that each group has the same number. And how many pens are in each group? What is the number of chairs in each group? 25 = ……………………………… 35 = ……………………………… Number of groups (G C F) = ……………………… …………… Number of pens in each group = ……………………………… Number of notebooks in each group = ………………………………

Unit two Lesson (6 - 7)

Determine multiples of integers Least Common Multiple (LCM)

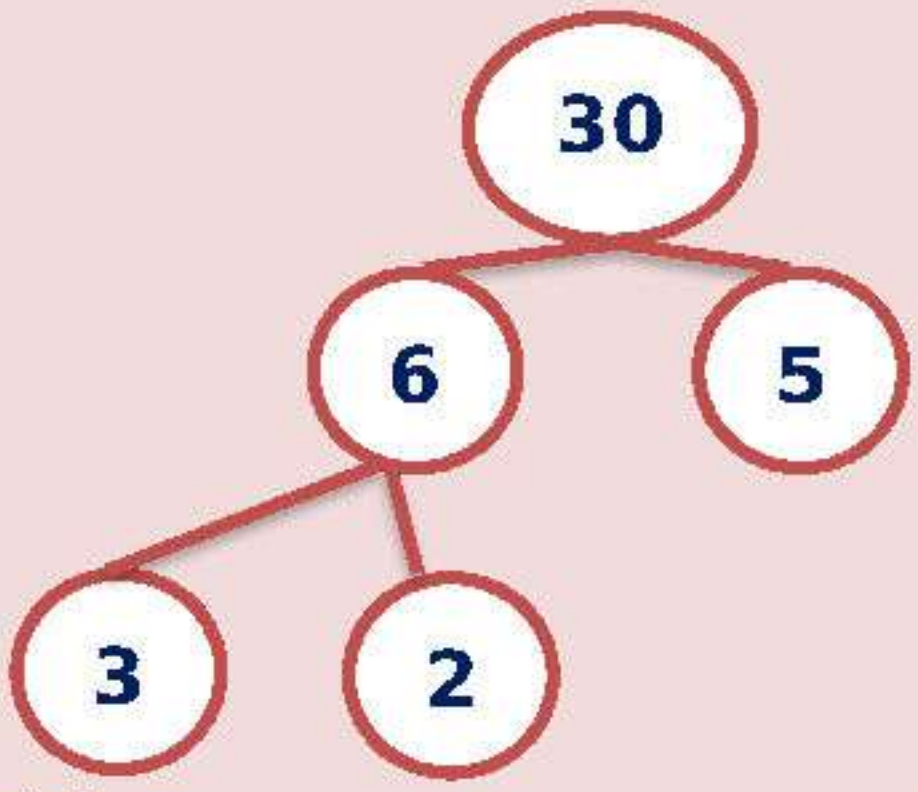
Multiples of numbers are the products of multiplying a number by each of the numbers (0 ، 1 ، 2 ، 3 ، 4 ، ....)

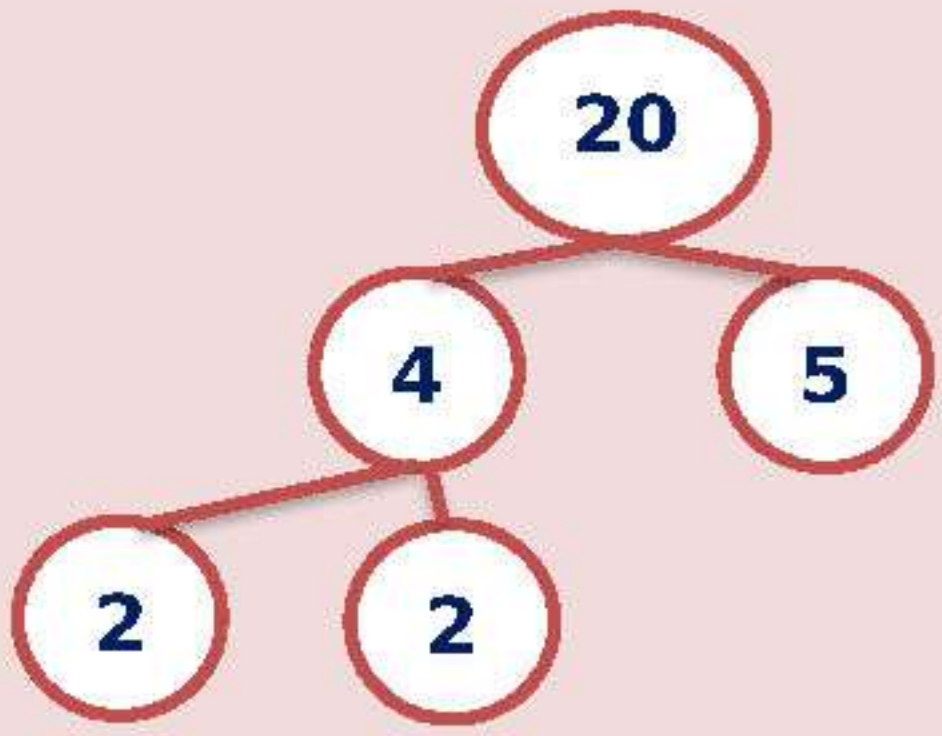
- Example multiples of 2 are: 0, 2, 4, 6 ....
- Note: If we multiply any number by 3, the result will be a multiple of 3 and so on.
- **Common multiples**
- Zero is a common multiple of all numbers except zero

Example (1) Write down the factors of each number, then write the Least Common Multiple (LCM)

1

- Find (LCM) for the two numbers (20, 30)

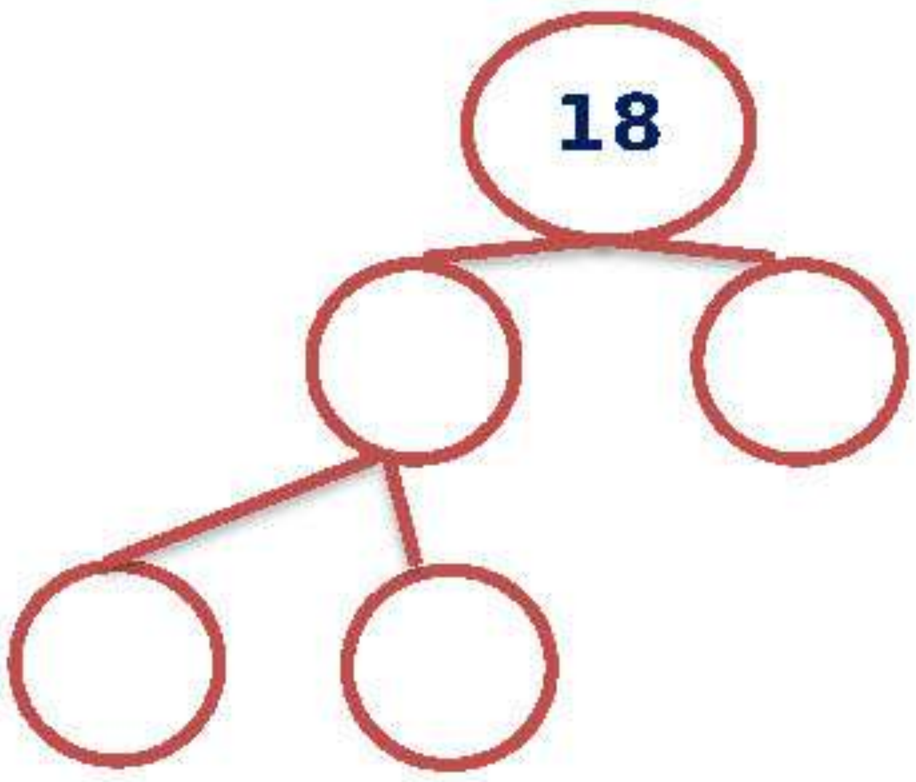


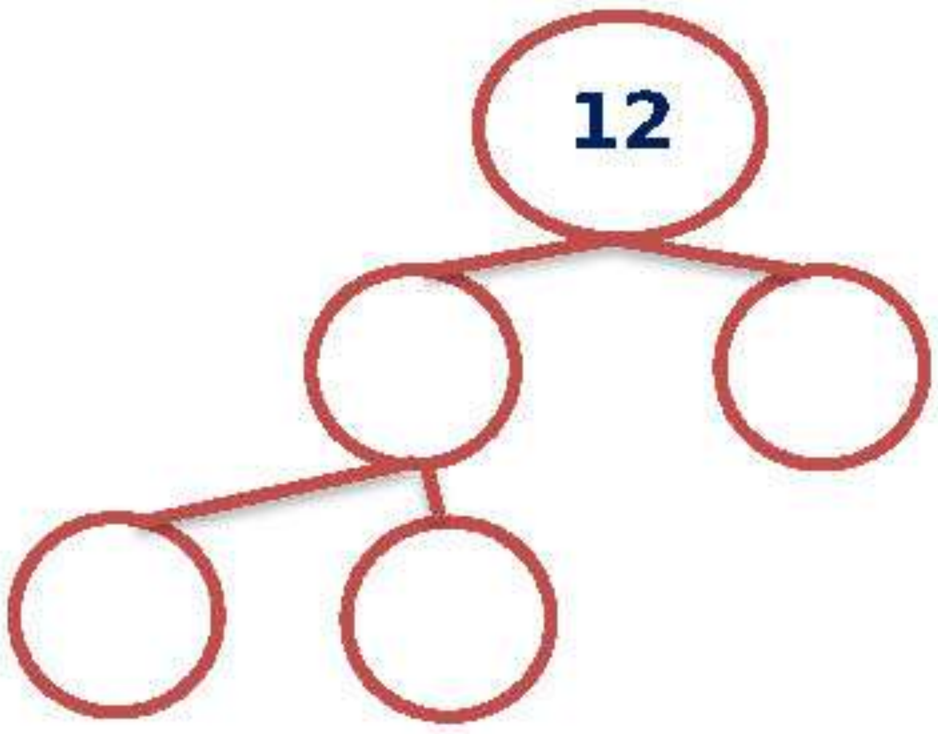


20 = ...× ....× ....
30 = ...× ....× .... × ....
LCM = ...× .....× ..... × ..... = ...

2

- Find (LCM) for the two numbers (12, 20)





12 = ...× ....× ....
18 = ...× ....× ....
LCM = ...× .....× ..... × ..... = ...

Example (3) Complete	
1	Multiples of 5 are ....
2	Multiples of 3 are ....
3	Multiples of 10 are ....
4	What is the common multiple of 5 and 8? The multiples of 5 are........... .... Multiples of 8 are .... (30 ، 40 ، 20)
5	Which of the following is not a common multiple of 9 and 6? Multiples of 9 are.............. .... Multiples of 6 are .... (36 ، 27 ، 18)
6	Multiples of 3 that are less than 15 are ....
7	14 is a common multiple of both...
8	21 is a common multiple of both.......................................
9	An even number that is a common multiple of 2 , 5 is greater than 35 and less than 42 is..............
10	5 are common multiples of 3 and 4 The multiples of 3 are .... The multiples of 4 are .... Common complications are ....
11	5 are common multiples of 10 and 5 The multiples of 10 are .... The multiples of 5 are .... Common complications are ....

Example (4) Factor a number into its prime factors			
1	6 =................................. 9 =................................. LCM = ...	2	6 =................................. 10 =............................... LCM = ...
3	24 =............................... 36 =............................... LCM = ...	4	15 =............................... 18 =............................... LCM = ...

Exercises (3)

Example (1) Complete	
1	Multiples of 4 are ....
2	Multiples of 7 are ....
3	Multiples of 20 are ....
4	What is the common multiple of 3 and 9? The multiples of 3 are........... .... Multiples of 9 are .... (9 ، 40 ، 20)
5	Which of the following is not a common multiple of 10 and 15? Multiples of 10 are............... .... Multiples of 15 are .... (30 ، 27 ، 60)
6	Multiples of 7 that are less than 15 are ....
7	15 is a common multiple of both...
8	35 is a common multiple of both...
9	An even number that is a common multiple of 4 , 3 is greater than 35 and less than 42 is..............
10	5 are common multiples of 7 and 3 The multiples of 3 are .... The multiples of 4 are .... Common complications are ....
11	5 are common multiples of 2 and 5 The multiples of 3 are .... The multiples of 4 are .... Common complications are ....

Example (3) Complete by writing a multiple or not			
1	24 .... for the number 5	2	45 .... for the number 5
3	10 ...... for the number 40	4	9 .... for the number 27

Example (4) Factor a number into its prime factors

1	35 =................................ 25 =................................ LCM = ...	2	10 =................................ 15 =................................ LCM = ...
3	21 =................................ 14 =................................ LCM = ...	4	49 =................................ 35 =................................ LCM = ...
5	16 =................................ 8 =................................ LCM = ...	6	60 =................................ 48 =................................ LCM = ...
7	36 =................................ 42 =................................ LCM = ...	8	45 =................................ 63 =................................ LCM = ...
9	10 =................................ 5 =................................ LCM = ...	10	3 =................................ 8 =................................ LCM = ...
11	5 =................................ 6 =................................ LCM = ...	12	3 =................................ 11 =................................ LCM = ...

Unit two Lesson (8)

factors or Multiples

- Factors: are the numbers that we multiply to get the product of the multiplication

4 is a factor and 5 is a factor of 20 because 20 = 5 x 4

- Multiples: are the numbers that appear when jumping on the number line or the hundredth chart by the number starting from the number

Or is it the product of multiplying a number by (1, 2, 3 , ...)

- Greatest Common Factor (GCF)
  It is the largest factor that divides a set of numbers evenly
- Least Common Multiple (m.m.a)
  It is the smallest multiple of a group of numbers

- (GCF): GCF problems involve dividing or cutting things into pieces or separate them into equal groups .
- (LCM): LCM problems involve things that are repeated, multiple, or Two things happen at the same time.

Example (1) Factor a number into its prime factors

1	12 =................................. 10 =................................. G C F = ... LCM = ...	2	8 =................................. 4 =................................. G C F = ... LCM = ...
3	3 =................................. 7 =................................. G C F = ... LCM = ...	4	6 =................................. 9 =................................. G C F = ... LCM = ...

Example (2) Complete	
1	Menna gives her friends pencils and erasers. The store sells pencils in a box of 8 pens and erasers in a box of 10 erasers. If she wants the same number of both pens and erasers, what is the minimum number of pencils that she will need to buy? Should you find the greatest common factor (GCF) or the least common multiple (LCM) what's the answer ? …………………………………………………………………… …………………………………………………………………… ……………………………………………………………………
2	Omar takes 3 minutes while walking to make one lap around the field while Sarah cuts 5minutes to make the same cycle. If both of them start walking now and continue at the same rate, after how many minutes they meet again. Should you find the greatest common factor (GCF) or the least common multiple (LCM) what's the answer ? …………………………………………………………………… …………………………………………………………………… ……………………………………………………………………
3	Ola sells 6 boxes of figs and each contains 9 fruits. She also sells bags of pomegranates, each containing 7 fruits. If she sold the same number of both fruits, what was the smallest number of them she sold? Should you find the greatest common factor (GCF) or the least common multiple (LCM) what's the answer ? …………………………………………………………………… …………………………………………………………………… ……………………………………………………………………
4	Nour is preparing bags containing snacks for an upcoming trip. He has 6 oranges and 12 pieces of dried fruit. Nour wants to distribute the snacks evenly in the bags without leaving any food. What is the maximum number of bags containing snacks that Nour can prepare? Should you find the greatest common factor (GCF) or the least common multiple (LCM) what's the answer? …………………………………………………………………… …………………………………………………………………… ……………………………………………………………………

Exercises (4)

Example (1) Factor a number into its prime factors			
1	12 =................................... 10 =................................... GCF = ... LCM = ...	2	8 =................................... 4 =................................... GCF = ... LCM = ...
Example (2) Complete			
1	Menna gives her friends pencils and erasers. The store sells pencils in a box of 9 pens and erasers in a box of 12 erasers. If she wants the same number of both pens and erasers, what is the minimum number of pencils that she will need to buy? Should you find the greatest common factor (GCF) or the least common multiple (LCM)? what's the answer		
2	Omar cuts 4 minutes while walking to make one lap around the court while Sarah cuts 10minutes to make the same cycle. If both of them start walking now and continue at the same rate, after how many minutes they meet again. Should you find the greatest common factor (GCF) or the least common multiple (LCM)? what's the answer		
3	Ola sells 14 boxes of figs and each contains 7 fruits. She also sells bags of pomegranates, each containing 2 fruits. If she sold the same number of both fruits, what was the smallest number of them she sold? Should you find the greatest common factor (GCF) or the least common multiple (LCM)? what's the answer		

Exam (unit two)

Example (1) Choose the correct answer

(1)	The operation used to find the value of X in the equation: 6 - 3.2 = X is..........						
(أ)	addition	(ب)	subtraction	(جـ)	multiplication	(د)	division
(2)	The multifactorial number of the following numbers is...............						
(أ)	7	(ب)	3	(جـ)	15	(د)	5
(3)	The mathematical sentence: 6.87 = n + 2.17 represents............						
(أ)	equation	(ب)	differentiated	(جـ)	a mathematical expression	(د)	otherwise
(4)	The least common multiple (LCM) of the numbers 3 and 6 is......						
(أ)	3	(ب)	18	(جـ)	6	(د)	24
(5)	A number whose prime factors are 2, 3, and 5 is......................						
(أ)	30	(ب)	20	(جـ)	10	(د)	15
(6)	If: 15 = C + 12.5, then the value of C is equal to....................						
(أ)	25	(ب)	0.25	(جـ)	2.5	(د)	27.5
(7)	The greatest common factor of the numbers 14 and 28 is......						
(أ)	3	(ب)	5	(جـ)	7	(د)	14

Example (2): - Complete

1	The first number prime following the number 11 is........
2	The value of the variable y in equation 5 = y - 3.2 is.......
3	(G.C.F) for the numbers 12 and 14 is..... ....
4	The first 5 multiples of 4, except for zero, are ...... ,...... ,...... ,...... ,......
5	The mathematical sentence: 2.61 + Z represents................
6	The numbers 3, 6, 9, and 12 are multiples of a number........
7	The smallest odd prime number is...............................
8	R = ...

R	
23,326	24,267

Example (3) Choose the correct answer

(1)	Rounding the number 234,624 to the nearest ten thousand						
(أ)	234,000	(ب)	230,000	(جـ)	240,000	(د)	234,600
(2)	10 times the number 420 equals...						
(أ)	42,000	(ب)	42	(جـ)	420,000	(د)	4,200
(3)	Two numbers whose sum is 2.8, so if the first number is 1.7, then the equation that expresses this situation is?						
(أ)	X+1.7=2.8	(ب)	X-2.8=1.7	(جـ)	X=1.7+2.8	(د)	X=1.7×2.8
(4)	The common factor of all numbers is......... the smallest prime number						
(أ)	<	(ب)	>	(جـ)	=	(د)	otherwise
(5)	Its first prime is .... only						
(أ)	Two factors	(ب)	one factors	(جـ)	Three factors	(د)	Four factors
(6)	The variable in the equation: 5.5 = 3.2 + X is						
(أ)	5.5	(ب)	3.2	(جـ)	2.3	(د)	X
(7)	56 is a multiple of..						
(أ)	5	(ب)	6	(جـ)	8	(د)	9

مثال (2) : - أكمل حسب المطلوب	
Find (L.C.M) for the numbers 14 and 21	1
Find (G.C.F)for the numbers 15 and 30	2
Write an equation to represent the following word problem using a variable, then solve it: Two boxes have a sum of masses of 14.6 kg. If the mass of the first box is 8.15 kg, what is the mass of the second box?	3
Hussein and omar start a race to run around the stadium. If Hussein runs around the stadium in 8 minutes, and Omar runs around the stadium in 6 minutes, how many minutes after running will the two players meet at the starting point again? Do you have to find the greatest common factor (G.C.F) or the least common multiple (L.C.M)? what's the answer	4

The third unit
Lesson (1)

Multiplication by a two-digit number

- **Multiplication using the area of the rectangle model**
  - 15 × 23 = 345

	10	5
3	10× 3 = 30	5× 3 = 15
20	10× 20 = 200	5× 20 = 100

200 + 100 + 30 + 15 = 345

- **Multiplication using the distributive property**
- 15 × 3 = 3 × (10 + 5)

  =(3 × 10) + (3 × 5)

  = 30 + 15

  = 45

Example (4) Using the rectangle area model, find the product

1. 95 × 41 =..........................

	....	....
...		
...		

....

2. 72 × 52 =..........................

	....	....
...		
...		

....

3. 526 × 25 =..........................

	....	....	....
...			
...			

....

4. 748 × 26 =..........................

	....	....	....
...			
...			

....

Example (2): - Using the distributive property, find the product of the product	
25×51 = (.... × ....) + (.... × .....) + (.... × ....) + (... × ....) = ... + ... + ... + ... = ...	1
53×87 = (.... × ....) + (.... × .....) + (.... × ....) + (... × ....) = ... + ... + ... + ... = ...	2
73×63 = ... × (........ + ... + ...) =(...... × ......) + (...... × ......) + (...... × ......) = ... + ... + ... = ...	3
88×21 = (.... × ....) + (.... × .....) + (.... × ....) + (... × ....) = ... + ... + ... + ... = ...	4

Example (5): - Find the product	
1	Each river bus can accommodate 22 passengers at a time What is the maximum number of passengers that can be carried on 15 flights? ....
2	65 people participated in a trip, each person paid 260 pounds. Find what they paid. ....
3	A school with 32 classes, each class with 52 students. How many pupils does the school have? ....
4	If a kilogram of apples costs 30 pounds, how much does 15 kilograms cost? ....

Exercises (1)

Example (1) Using the rectangle area model, find the product

1	62 × 52 =........................ .... [ ] [ ] ... [ ] [ ]	2	236 × 54 =........................ .... [ ] [ ] ... [ ] [ ] ....

Example (2): - Using the distributive property, find the product of the product

35×61 = (.... × ....) + (.... × .....) + (.... × ....) + (... × ....) = ... + ... + ... + ... = ...	1
93×45 = (.... × ....) + (.... × .....) + (.... × ....) + (... × ....) = ... + ... + ... + ... = ...	2

Example (4): - Find the product

1	Each river bus can accommodate 42 passengers at a time What is the maximum number of passengers that can be carried on 23 flights? ....
2	A car carries 15 tons of iron per day. How much pregnancy in 165 days. ....
3	A school with 23 classes, each class with 41 students. How many pupils does the school have? ....
4	If a kilogram of apples costs 65 pounds, how much is 23 kilograms? ....

The third unit Lesson (3-4) Multiplication by a two-digit number

• Standard multiplication algorithm

$$\begin{array}{r} 1{,}625 \\ \times\ \ 24 \\ \hline 6{,}500 \\ +\ 32{,}500 \\ \hline 39{,}000 \end{array} \qquad \begin{array}{r} 45 \\ \times\ 3 \\ \hline 135 \end{array}$$

Example (1) Find the product

1	876 × 43 .... + ...	2	548 × 82 .... + ...	3	156 × 76 .... + ...	4	378 × 59 .... + ...
1	5,931 × 45 .... + ...	2	4,784 × 73 .... + ...	3	7,360 × 85 .... + ...	4	8,158 × 26 .... + ...

Example (2) Find the product of the multiplication

1	457 × 15 =..........................	2	625 × 53 =.......................... ....
3	605 × 46 =..........................	4	725 × 27 =.......................... ....

Example (3) Use estimation to determine the product of the multiplication, then find the actual product

1	43 × 34 Estimation : .... The actual solution	2	152 × 23 Estimation : .... The actual solution	3	746 × 65 Estimation : .... The actual solution	4	415 × 72 Estimation : .... The actual solution ....

Example (5): - Find the product

1	Each river bus can accommodate 22 passengers at a time What is the maximum number of passengers that can be carried on 15 flights? ....
2	65 people participated in a trip, each person paid 260 pounds. Find what they paid. ....
3	A school with 32 classes, each class with 52 students. How many pupils does the school have? ....

Exercises (2)

Example (1) Using the rectangle area model, find the product

1. 62 × 52 =........................

   ....

   ... / ... (2 × 2 area model)

   ....

2. 26 × 54 =........................

   ....

   ... / ... (2 × 2 area model)

   ....

3. 783 × 52 =........................

   ....

   ... / ... (2 × 3 area model)

   ....

4. 236 × 62 =........................

   ....

   ... / ... (2 × 3 area model)

   ....

Example (2) Find the product

1	235 × 32 .... + ...	2	526 × 74 .... + ...	3	626 × 46 .... + ...	4	572 × 98 .... + ...
5	461 × 82 .... + ...	6	628 × 49 .... + ...	7	826 × 53 .... + ...	8	953 × 72 .... + ...

Example (3) Use estimation to determine the product of the multiplication, then find the actual product

1	67 × 43 Estimation : .... The actual solution	2	748 × 62 Estimation : .... The actual solution	3	836 × 18 Estimation : .... The actual solution	4	357 × 33 Estimation : .... The actual solution ....

Example (4): - Find the product

1	Each river bus can accommodate 42 passengers at a time What is the maximum number of passengers that can be carried on 23 flights? ....
2	A car carries 15 tons of iron per day. How much pregnancy in 165 days. ....
3	A school with 23 classes, each class with 41 students. How many pupils does the school have? ....
4	If a kilogram of apples costs 65 pounds, how much is 23 kilograms? ....
5	25people participated in a trip, each person paid 234 pounds. Find what they paid. ....

The third unit
lesson (5)

Life multiplication problems

Example (1): - Complete	
1	If the price of a kilogram of apples is 78 pounds. How much is 156 kg ………………………………………………………………………… ………………………………………………………………………… …………………………………………………………………………
2	34people participated in the trip, each person paid 367 pounds. Find what they paid. ………………………………………………………………………… ………………………………………………………………………… …………………………………………………………………………
3	An ant travels 52 meters per hour, find the distance it travels in 584 hours. ………………………………………………………………………… ………………………………………………………………………… …………………………………………………………………………
4	A family consumes 23 chickens per week, so if the price of one chicken 243 pounds, so he found the price of 23 chickens. ………………………………………………………………………… ………………………………………………………………………… …………………………………………………………………………
5	If the mass of a child is 12 kg, and the mass of an elephant is 123 times the mass of the child, find the mass of the elephant ………………………………………………………………………… ………………………………………………………………………… …………………………………………………………………………
6	If the price of buying an electrical appliance is 452 pounds, what is the price of 14 appliances of the same type? ………………………………………………………………………… ………………………………………………………………………… …………………………………………………………………………

Exam (unit three)

Example (1) Choose the correct answer

(1)	30 × .... = (30×12)+(30×2)+(30×4)						
(أ)	12	(ب)	14	(جـ)	16	(د)	18
(2)	490 .... 15 × 34						
(أ)	<	(ب)	>	(جـ)	=	(د)	غير ذلك
(3)	Estimation result: 97 x 51 is.....................						
(أ)	4,000	(ب)	50,000	(جـ)	5,000	(د)	6,000
(4)	364×27 = ...						
(أ)	9,882	(ب)	8,928	(جـ)	9,828	(د)	2,898
(5)	Emad reads 25 pages daily. To calculate the number of pages read in 30 days, we use						
(أ)	30 + 25	(ب)	30 × 25	(جـ)	30 - 25	(د)	30 ÷ 25
(6)	17 × 51 = ...						
(أ)	687	(ب)	867	(جـ)	785	(د)	766
(7)	Estimate output: 97 x 603 using rounding to the nearest ten is						
(أ)	6,000	(ب)	600	(جـ)	60,000	(د)	7,000

Example (2): - Complete

1	Mayar bought 14 meters of fabric, the price of one meter is 26 pounds, so the price of the fabric = ... pounds
2	5,617×56 = ...
3	36×99=(36×100)- ....
4	156 × 32 = ...
5	52 × 9 = (52 × 10) – ....
6	2,215 × 80 = ...
7	24 × .... = (20×30)+(20×7)+(4×30)+(4×7)
8	If: 4,700 = 100 x 47, then: .... = 99 x 47

Example (3) Choose the correct answer								
(1)	168 × 32 = ...							
(أ)	9,056	(ب)	5,376	(جـ)	3,466	(د)	1,348	
(2)	17 × 18 .... 20 × 11							
(أ)	<	(ب)	>	(جـ)	=	(د)	غير ذلك	
(3)	(34×10)+(34×7) = 34 ×							
(أ)	70	(ب)	34	(جـ)	17	(د)	41	
(4)	Estimated output: 62 x 199 is...............							
(أ)	12,000	(ب)	14,000	(جـ)	13,000	(د)	20,000	
(5)	601×37=(1×7)+(600×7)+(600×30) + ...							
(أ)	30×70	(ب)	30×30	(جـ)	6×30	(د)	30	
(6)	Estimate output: 1,654 x 15 using the first number from the left strategy is..............							
(أ)	10,000	(ب)	20,000	(جـ)	1,000	(د)	100,000	
(7)	3,351 × 75 = ...							
(أ)	14,489	(ب)	251,325	(جـ)	25,379	(د)	125,959	

Example (2): - Complete as required	
1	A cargo delivery truck travels 1,278 kilometers per day. What is the distance traveled by the truck in 38 days? ....
2	45×59 = ... × (........ + ... + ...) =(...... × ......) + (...... × ......) + (...... × ......) = ... + ... + ... = ...
3	Ahmed has 3,000 piasters. If he buys 14 checkbooks, the price of one check is 150 piasters. Find the remaining amount. ....
4	Find the product: 54 × 5,841 ....

Unit four
Lesson (2-1)

Divide by a two-digit number and Quotient estimate

Example (1): - Find the result of the division

1 Find the quotient of 1,625 ÷ 13 using the area of a rectangle model

	100	20	5
13	1,625 - 1,300 325	325 - 260 65	65 - 65 00

Quotient = 5 + 20 + 100 = 125

2 Find the quotient of 2,207 ÷ 7 using the area of a rectangle model

	......	....	....
....	.... -	.... -	.... - ....

Quotient= ....

remainder= ....

3 Find the quotient of 5,479 ÷ 15 using the area of a rectangle model

	......	....	....
....	.... -	.... -	.... - ....

Quotient= ....

remainder= ....

Example (2) I use estimation to determine the result of division

1	1,163÷14 Estimation :	2	8,235÷24 Estimation :	3	9,216÷35 Estimation :	4	4,254 ÷19 Estimation : ....

Exercises (1)

Example (1): - Find the result of the division

1 Find the quotient of 7,700 ÷ 22 using the area of a rectangle model

	......	....	....
....	.... -	.... -	.... - ....

Quotient= ....

remainder= ....

2 Find the quotient of 2,844 ÷ 18 using the area of a rectangle model

	......	....	....
....	.... -	.... -	.... - ....

Quotient= ....

remainder= ....

3 Find the quotient of 5,430 ÷ 30 using the area of a rectangle model

	......	....	....
....	.... -	.... -	.... - ....

Quotient= ....

remainder= ....

Example (2) I use estimation to determine the result of division

1	5,325÷47 Estimation :	2	6,152÷29 Estimation :	3	2,245÷50 Estimation :	4	923 ÷12 Estimation : ....

Unit four
Lesson (3 – 4)

Use the standard algorithm for division And the relationship of division to multiplication

- 5,325 ÷ 25 = ...

25	1
50	2
75	3
100	4
125	5
150	6
175	7
200	8
225	9

```
        0213
 25 )  5,325
     _ 50
        32
     _  25
         75
     _   75
         00
```

There is no remainder

Verify the division process

```
    213
 ×   25
 ------
  1,065
 +4,260
 ------
  5,325
```

Example (1) Find the quotient

1. 7,971 ÷ 40 = ...

2. 1,515 ÷ 15 = ...

3	2,838 ÷ 11 = ...	4	5,356 ÷ 52 = ...
5	3,125 ÷ 25 = ...	6	3,400 ÷ 12 = ...
7	2,687 ÷ 34 = ...	9	4,514 ÷ 74 = ...

Exercises (2)

Example (1) Find the quotient

1	1,049 ÷ 12 = ...	2	867 ÷ 32 = ...
1	442 ÷ 18 = ...	2	3,914 ÷ 91 = ...

Example (2): - Complete

1	Muhammad bought 50 meters of fabric at a price of 1450 pounds, find the price of one meter? ....

Unit four lesson (5)

Multistep word problems

Example (1): - Complete	
1	Computer World Library sold 762 packages of paper, and An-Najah Library sold 3 times the amount of paper sold by Computer World Library. What An-Najah Library sold was more than 143 packages sold by the Library Supplies Center .How many reams of paper did the three bookstores sell? …………………………………………………………………… ……………………………………………………………………
2	Malik and his family will go to his grandmother's house, which is 356 km away. On Friday, they will travel 124 km, and on Saturday, they will travel 210 km. How many kilometers will they walk on Sunday to get to his grandmother's house? …………………………………………………………………… ……………………………………………………………………
3	Zainab ordered 12 packages of square pieces of fabric to make a quilt, each package contains 18 square pieces of fabric, and Zainab used all the square pieces to make the quilt. Reem made a quilt with a width of 13 squares and a length of 13 squares. How many squares did Reem use in her quilt? Squares used by Zainab? …………………………………………………………………… …………………………………………………………………… ……………………………………………………………………
4	The state distributed 240 acres equally among 30 agricultural engineers. If the price of one acre is 18,000 pounds, how much does each engineer pay? …………………………………………………………………… ……………………………………………………………………
5	An architect is working on designing a bridge in front of the engineer. Two options for obtaining the necessary materials. The Strong Steel Company sells 5 tons of steel for 100,000 pounds, and the Silver Steel Company sells 3 tons of steel for 70,000 pounds. If the engineer needs 15 tons of steel, how much money will he save at Buying from Strong Steel Company? …………………………………………………………………… …………………………………………………………………… ……………………………………………………………………

Exam (unit four)

Example (1) Choose the correct answer

(1)	If: (and the remainder is 4) 251 = 31÷7,785, then: 251×31 = ...						
(أ)	7,784	(ب)	7,782	(جـ)	7,781	(د)	7,783
(2)	560÷7 .... 720÷9						
(أ)	<	(ب)	>	(جـ)	=	(د)	غير ذلك
(3)	5,600 ÷ 80 = ...						
(أ)	7	(ب)	70	(جـ)	700	(د)	7,000
(4)	The remainder of the division: 156 ÷ 5 is....................						
(أ)	1	(ب)	10	(جـ)	2	(د)	7
(5)	Estimation result: 1,254 ÷ 12 is closer to................						
(أ)	100	(ب)	130	(جـ)	150	(د)	200
(6)	Jihad bought 14 meters of fabric for 224 pounds, so the price of one meter of fabric = ... pounds						
(أ)	14	(ب)	41	(جـ)	16	(د)	61
(7)	1,498 ÷ 17 = ...						
(أ)	88	(ب)	88 remainder) (2	(جـ)	89 remainder) (1	(د)	89 remainder) (2

Example (2): - Complete

1	Divisor = (Divisor x ....) + remainder
2	When dividing: 53 = 107÷ 2 , the remainder of the division =...........................
3	The divisor in the division problem: 14 = 1,050 ÷ 75 is ....
4	6,175 ÷ 49 = ...
5	1,725 ÷ .... = 69
6	The number which, if divided by 17, is divisible by 22, is ......
7	Estimation result: 490 ÷ 50 is............ ....
8	The remainder of the division: 156 ÷ 5 is ....

Example (3) Choose the correct answer

(1)	1,843 ÷ 16 = ...						
(أ)	115	(ب)	115 remainder) (1	(جـ)	115 (remainder 2)	(د)	115 remainder) (3
(2)	(143 × 13) + 5 = ...						
(أ)	1,864	(ب)	1,859	(جـ)	6,431	(د)	6,481
(3)	4,575 ÷ 15 >.........................						
(أ)	305	(ب)	301	(جـ)	315	(د)	400
(4)	234 ÷ 18 = 10 + ...						
(أ)	2	(ب)	3	(جـ)	4	(د)	8
(5)	Which of the expressions can be used to check the division problem: (And the remainder is 1) 261 = 9,658÷ 37						
(أ)	262×37	(ب)	262×37+1	(جـ)	262×20+1	(د)	262×1+37
(6)	The dividend in the division problem 121 = 4,235 ÷ 35 is..........						
(أ)	4,235	(ب)	35	(جـ)	121	(د)	1
(7)	The number that, if multiplied by 46, results in 2,576................						
(أ)	55	(ب)	56	(جـ)	50	(د)	54

Example (2): - Complete as required

1	A library contains 821 books, of which the owner of the library sold 245 books, and distributed the rest equally on 12 shelves, so what is the number of books on each shelf? ....
2	Estimate, then find the quotient 928 ÷ 19 = 2,089 ÷ 36 = ...
3	A school divided a financial prize of 4,135 Egyptian pounds equally among 11 outstanding students. What is the value of the amount that each student will receive? Is there any part of the amount that cannot be distributed? ....

Fifth unit Lesson (1 - 3)

Multiplication by powers of 10

• Patterns of multiplication in tens

- Important: When multiplying any number by 1000, 100, 10 The product of the multiplication is increased by the same number of zeros

  $3 \times 10 = 30$, $7 \times 100 = 700$, $9 \times 1,000 = 9,000$

  Important: When multiplying any number by 1000, 100, 10

  The result of the decimal point moves to the right

  according to the number of zeros in the factorial

  $23.61 \times 10 = 236.1$, $23.61 \times 100 = 2,361$

  Important: when multiplying any number by 0.001, 0.01, 0.1

  The result of the decimal point will move to the left

  $23.61 \times 0.1 = 2.361$, $23.61 \times 0.01 = 0.2361$

Example (1) Complete

1	10 × 5 = 50	10	100 × 9 = ...
2	10 × .... = 60	11	100 × .... = 400
3	10 × .... = 800	12	100 × .... = 5,400
4	10 × 5.6=	13	100 × 56.4 = ...
5	100 × 65.34 = ...	14	1,000 × 2.345 = ...
6	1,000 × 5.65 = ...	15	100 × 3.5 = ...
7	267.14× 0.001 =..................	16	52.26× 0.01 =........................
8	480.36× 0.01 =..................	17	75.27× 0.1 =........................
9	9.0× 0.01 =..................	18	0.6× 0.001 =..................

Example (2) Complete

1	7.5 × …….. = 750	4	25.35 × …….. = 253.5
2	420.2 × …….. = 0.4202	5	4.426 × …….. = 4,426
3	……… × 100 = 23.5	6	2.67 × …….. = 2,670

Example (3) Complete

1	4.005 = 4 + 5 × R R = …………	3	526 = 5 × A + 2 × B + 6 A = ………… B = …………
2	54.29 =5×M +4+2×N+9×H M = …… N = ….. H = …..	4	305.09 = 3 × Q + 5 + 9 × E Q = ………… E = …………

Example (4) Find the product

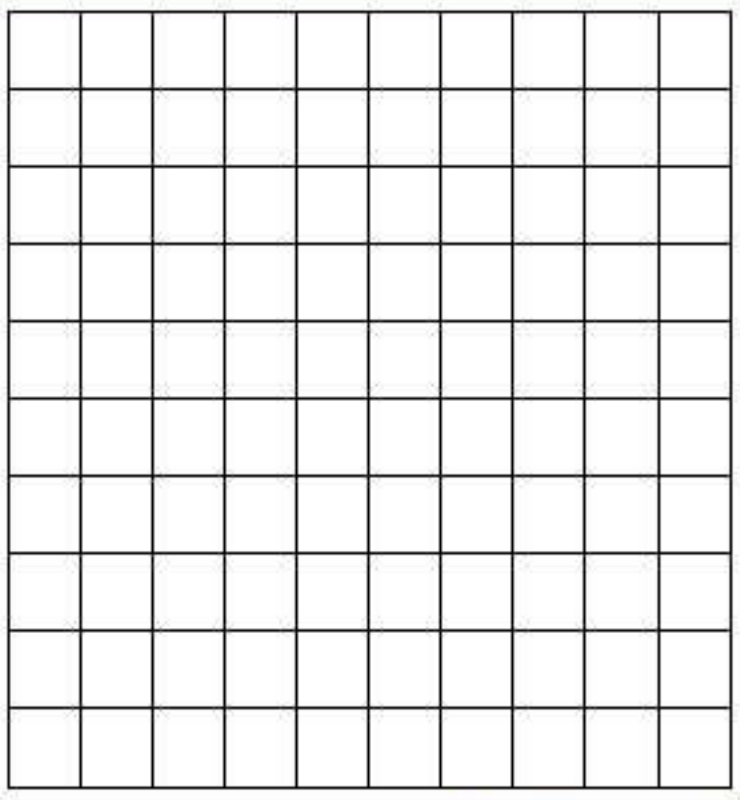
1	0.42 × 4 ………..	2	54.67 × 8 ………..	3	15.6 × 7 ………..	4	3.78 × 5 ………..
5	5.931 4 × ………….	6	47.84 3 × ………….	7	354.7 5 × ………….	8	8.158 6 × ………….

Example (5) Complete

1	0.0342 × 7 = ……………….	4	3.983 × 6 = …………………
2	4.277 × 5 = …………………	5	23.346 × 3 = …………………
3	32.67 × 4 = …………………	6	26.5 × 8 = …………………

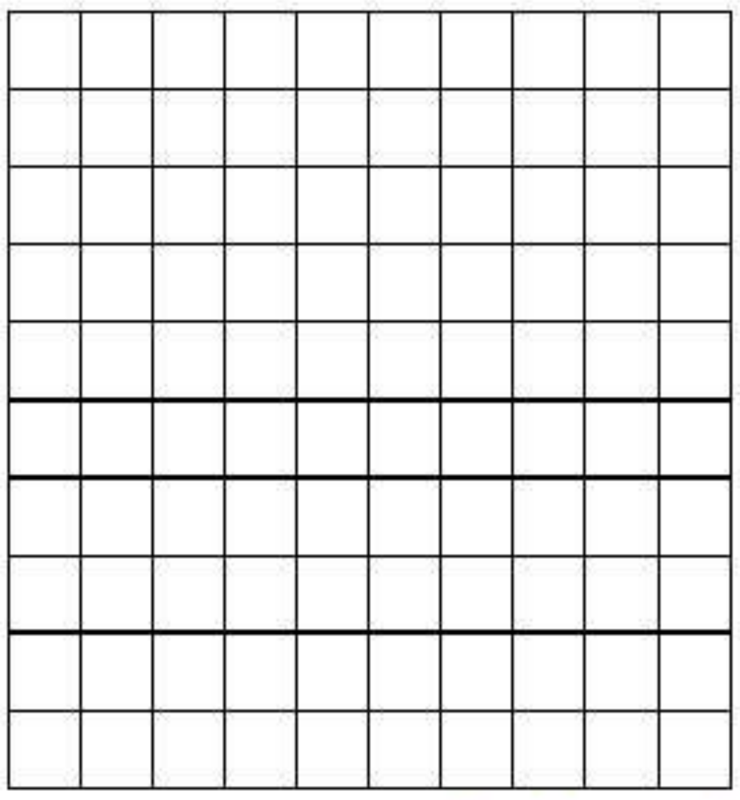
Example (6): - Read and then answer

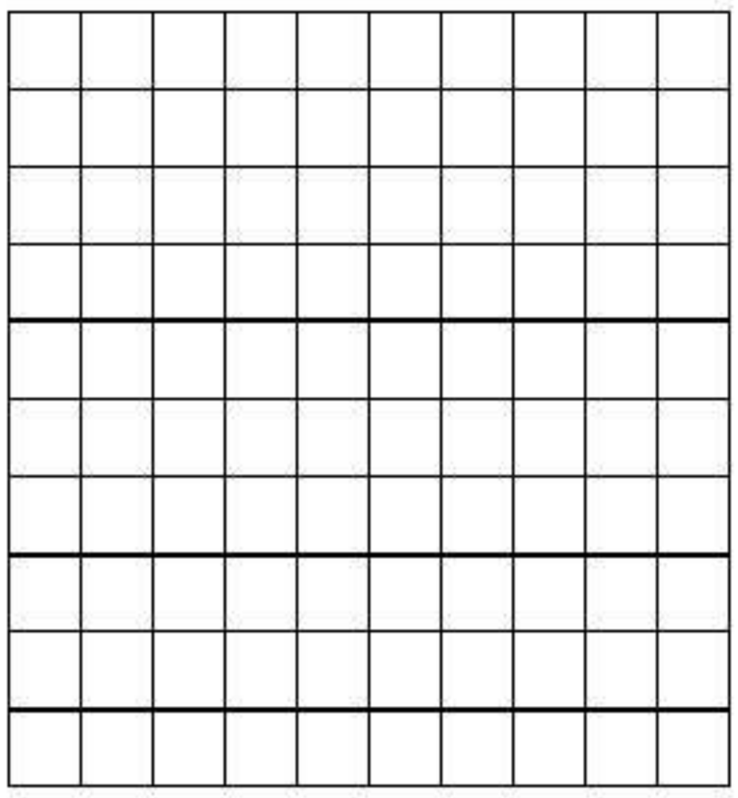
1



0.7 × 0.8 =..........

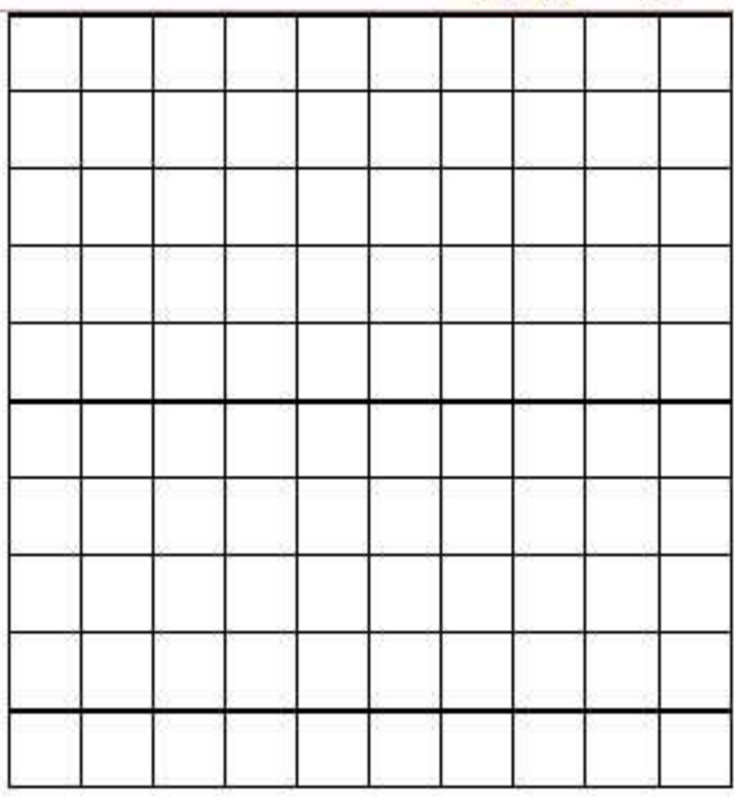
2

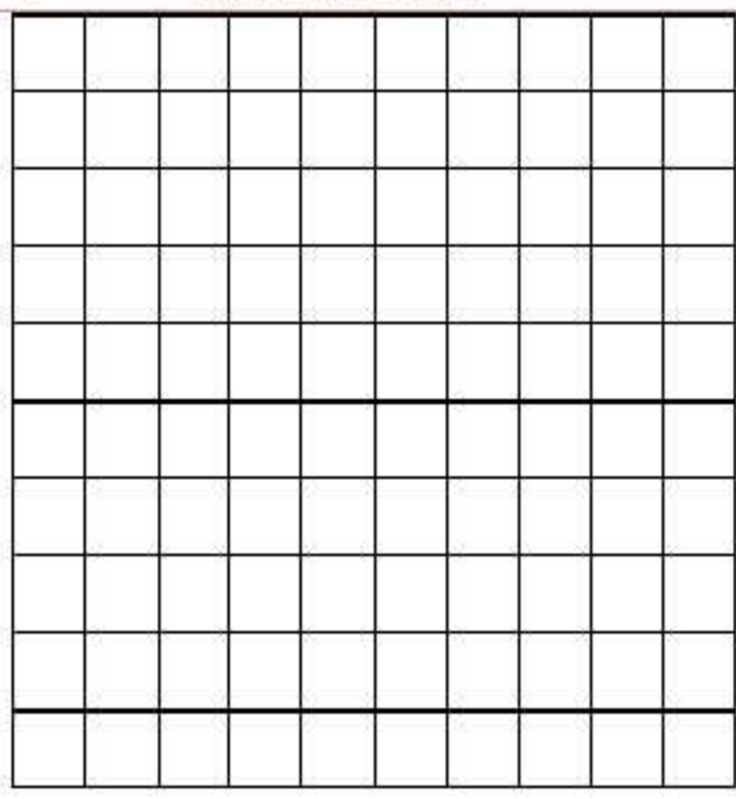




1.6 × 0.4 =..........

3





1.3 × 0.6 =..........

Example (6) Complete

1	**The length of the step you take is 0.72 meters. How long will you walk after taking 1,000 steps in metres?** ....

Exercises (1)

Example (1) Complete

1	10 × 6 = ...	10	100 × 4 = ...
2	10 × .... = 900	11	100 × .... = 500
3	10 × .... = 2,500	12	100 × .... = 7,300
4	10 × 3.5=	13	100 × 76.1 = ...
5	100 × 37.72 = ...	14	1,000 × 5.324 = ...
6	1,000 × 3.25 = ...	15	100 × 8.4 = ...
7	637.24× 0.001 =.................	16	26.38× 0.01 =......................
8	748.37× 0.01 =.................	17	56.25× 0.1 =......................
9	8.0× 0.01 =.................	18	0.7× 0.001 =.................

Example (2) Complete

1	6.4 × .... = 640	4	15.67 × .... = 156.7
2	43.67× .... = 0.4367	5	9.768 × .... = 9,768
3	.... × 100 = 37.3	6	8.52 × .... = 8,520

Example (4) Find the product

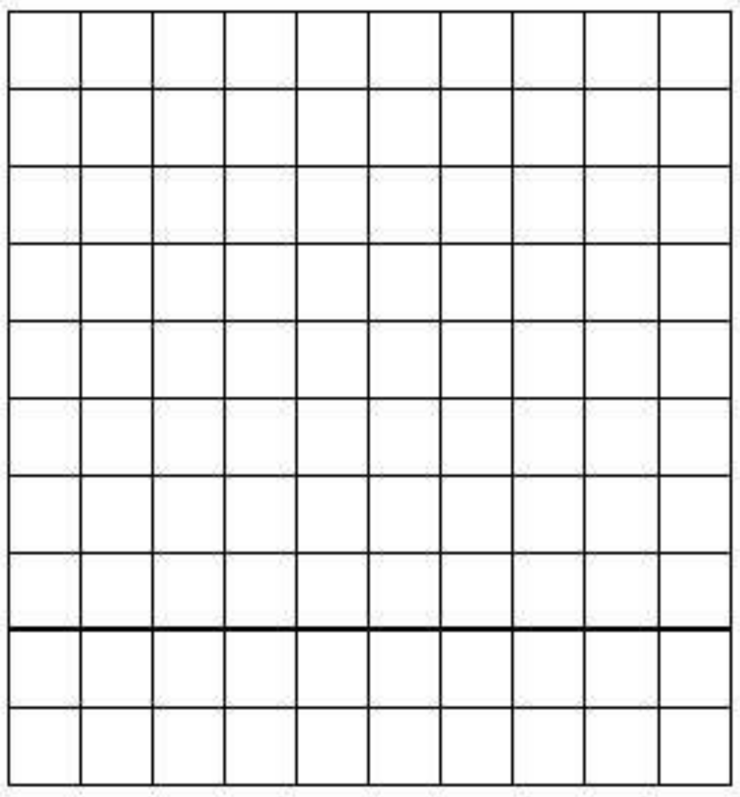
1	0.247 × 7 = ...	2	96.35 × 2 = ...	3	26.64 × 6 = ...	4	8.15 × 4 = ...
5	7.367 × 4 = ...	6	26.16 × 3 = ...	7	36.32 × 5 = ...	8	7.841 × 6 = ...

Example (5) Complete

1	0.0379 × 7 = …………………	4	43.638 × 6 = …………………….
2	6.84 × 5 = …………………….	5	51.268 × 3 = …………………….
3	17.15 × 4 = …………………….	6	157.15 × 8 = …………………….

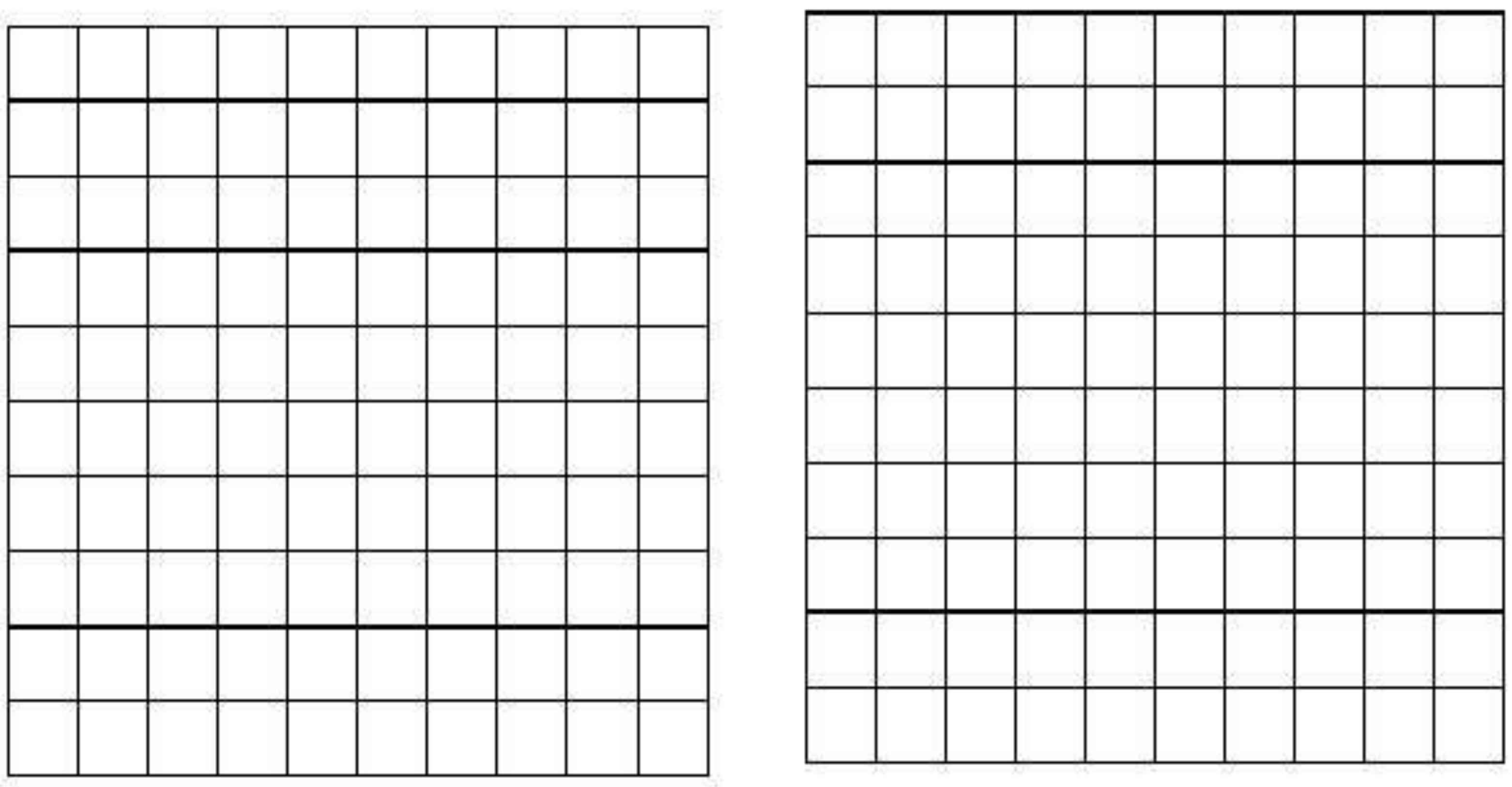
Example (6): - Read and then answer

1



0.6 × 0.5 =……….

2



1.5 × 0.3 =……….

Example (6) Complete

1. Samah bought 1.5 kg of apples, so if the price per kilogram 15.75 pounds, how much will Samah pay?

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

Fifth unit
Lesson
(6-5-4)

The use of the rectangle area model in the process of multiplying decimal fractions and the process of multiplying decimal fractions up to one hundredth

• •Multiplication by distribution and the area of

•

- 38.2 × 0.51 = 19.482

	30	8	0.2
0.5	0.5 × 30 = 15	0.5 × 8 = 4	0.5 × 0.2 = 0.10
0.01	0.01× 30 = 0.30	0.01× 8 = 0.08	0.01× 0.2 = 0.002

15 + 4 + 0.10 + 0.30 + 0.08 + 0.002 = 19.482

• Standard multiplication algorithm

```
   5.7
   2.3×
  ----
   171
 1,140 +
 -----
 13.11
```

Example (1) Using the rectangle area model, find the product

1. 2.4 × 4.5 =.........................

	....	....
.....		
....		

......+.......+.......+......=.......

2. 3.7 × 8.2 =.........................

	....	....
.....		
....		

......+.......+.......+......=.......

3	5.2 × 6.3 =........................ .... [grid] ....+.......+.......+......=.......	4	7.9 × 4.6 =........................ .... [grid] ....+.......+.......+......=.......
5	18.2 × 2.8 =...................... .... [grid] ....+.....+......+.....+.....+.... =......................................	6	71.9 × 4.6 =...................... .... [grid] ....+.....+......+.....+.....+..... =......................................

Example (2) Find the product

1	0.53 × 0.97 ....+	2	4.8 × 7.5 ....+	3	3.9 × 0.82 ....+	4	14.5 × 2.5 ....+ ....
5	2.41 × 0.36 ....+	6	57.3 × 0.28 ....+	7	75.38 × 6.5 ....+	8	3.73 × 3.2 ....+ ....

Example (3) Find the product

1	6.42 × 5.4 =…………………… ……………………………………… ………………………………………	2	8.536 × 1.9 =…………………… ……………………………………… ………………………………………

Example (4): - Complete

1	Muhammad has 12 containers of bricks, and the mass of each container is 1.35 tons. Find the total masses using the area of the rectangle model? ………………………………………………………… ………………………………………………………… ………………………………………………………… …………………………………………………………
2	35people participated in the trip, each person paid 65.12 pounds. Find out what they paid. ………………………………………………………… ………………………………………………………… …………………………………………………………
3	An ant travels 7.8 meters per hour, find the distance it travels in 0.15 hours ………………………………………………………… ………………………………………………………… …………………………………………………………
4	The lion eats 41.32 kilograms of meat per day, how many kilograms does he eat in 3.5 days? ………………………………………………………… ………………………………………………………… …………………………………………………………
5	Hani paints pictures and gets paid 56.72 pounds per painting. What is the total amount that Hani gets for 15 paintings? ………………………………………………………… ………………………………………………………… …………………………………………………………
6	Roa reads 24 pages a day, how many pages do you read in 4.5 days? ………………………………………………………… ………………………………………………………… …………………………………………………………

Exercises (2)

Example (1) Using the rectangle area model, find the product

1. 3.7 × 8.9 =........................

....

.....

....

......+.......+.......+......=.......

2. 2.4 × 7.5 =........................

....

.....

....

......+.......+.......+......=.......

3. 47.5 × 8.1 =......................

....

.....

....

.....+.....+......+.....+.....+....

=.....................................

4. 62.7 × 3.1 =......................

....

.....

....

.....+.....+......+.....+.....+.....

=.....................................

Example (2) Find the product

1	41.52 × 0.73	2	84.31 × 8.2	3	92.52 × 0.3	4	38.7 × 4.3
5	5.89 × 0.27	6	23.7 × 0.37	7	62.82 × 6.5	8	6.52 × 7.2

Example (2) Find the product			
1	63.62 × 5.8 =…………………… ……………………………………… ………………………………………	2	4.849 × 0.5 =…………………… ……………………………………… ………………………………………
3	27.2 × 2.5 =…………………… ……………………………………… ………………………………………	4	9.41 × 6.3 =…………………… ……………………………………… ………………………………………

Example (3): - Complete	
1	If the price of a kilogram of apples is 4.8 pounds. How much is 5.3 kg ………………………………………………………………… ………………………………………………………………… …………………………………………………………………
2	35 people participated in the trip, each person paid 35.76 pounds. Find out what they paid ………………………………………………………………… ………………………………………………………………… …………………………………………………………………
3	An ant travels 5.4 meters per hour, find the distance it travels in 0.45 hours ………………………………………………………………… ………………………………………………………………… …………………………………………………………………
4	The lion eats 52.41 kilograms of meat per day, how many kilograms does he eat in 1.5 days? ………………………………………………………………… ………………………………………………………………… …………………………………………………………………
5	Hani paints pictures and gets paid 267.15 pounds per painting. What is the total amount that Hani gets for 23 paintings? ………………………………………………………………… ………………………………………………………………… …………………………………………………………………
6	Roaa reads 31 pages a day, how many pages do you read in 3.5 days ? ………………………………………………………………… ………………………………………………………………… …………………………………………………………………

Fifth unit
Lesson (7 - 9)

- Decimals and the metric system
- Measurement, decimals, and powers of 10
- Solve multistep word problems

• Standard multiplication algorithm

• length
km = 1,000 m , m = 100 cm , dm = 10 cm , cm = 10 mm
m = 0.001 km , cm = 0.01 m , cm = 0.1 dm , mm = 0.1 cm
• Mass
Ton = 1,000 kg, kg = 1,000 g
kg = 0.001 tons, g = 0.001 kg
•Capacitance
Liter = 1,000 milliliters, milliliters = 0.001 liters
•When multiplying (10, 100, 1,000) to convert from large to small
We move the decimal point to the right
•When multiplying (0.1, 0.01, 0.001) to convert from small to large
We move the decimal point to the left

Example (1) Complete (10, 100, 1,000) or (0.1, 0.01, 0.001)

1	24.6 km x .... = ... m	8	370 m x .... = ... km
2	51mm x ...... = ... cm	9	3.47 m x .... = ... cm
3	0.8 cm x ...... = ... mm	10	3.47 cm x ...... = ... mm
4	3.47 km x ...... = ... m	11	0.007 km x .... = ... m
5	1.6 m x .... = ... dm	12	23 decimals x ..... = ... m
6	5.26 cm x ..... = ... mm	13	4.8 m x .... = ... dm
7	6,270 cm x ...... = ... m	14	9,327 cm x ...... = ... m

Example (2) Complete (1,000 or 0.001)			
1	17.5kg x .... = ... g	6	500kg x .... = ... ton
2	640 kg x .... = ... tons	7	4,800gm x .... = ... kg
3	0.007kg x .... = ... g	8	5.5kg x .... = ... g
4	3,730g x .... = ... kg	9	732kg x .... = ... tons
5	5.527kg x .... = ... g	10	6,381g x .... = ... kg

Example (3) Complete (1,000 or 0.001)			
1	62.4liters x ...... = ... ml	6	400ml x ...... = ... liters
2	237 ml x ...... = ... liters	7	9,300liters x ..... = ... ml
3	0.279liters x ..... = ... ml	8	3.1ml x .... =........ liters
4	237ml x .... = ... liters	9	268liters x .... = ... ml
5	7.264liters x ..... = ... ml	10	5,825ml x ...... = ... liters

Example (4): - Complete	
1	Dalia prepared a liter of cane juice, drank 320 milliliters of it, and her father drank Of it 0.25 liters, how much cane juice is left? ....
2	Rania works as a nurse in a hospital, and she needs 1.35 meters of rolled bandages for each of her 4 patients, there are 250 cm in each box, how many boxes does Rania need? And how much would be left if there were any left? ....
3	If Ehab was 138.2 cm tall in January, and at the end of the year it became his height 1.5 metres, how much is the increase in Ihab's height? ....

Exercises (3)

Example (1) Complete (10, 100, 1,000) or (0.1, 0.01, 0.001)			
1	25.7 km x ...... = ... m	7	620 m x .... = ... km
2	41mm x ...... = ... cm	8	8.62 m x .... = ... cm
3	0.7 cm x ...... = ... mm	9	6.42 cm x ...... = ... mm
4	8.51 km x ...... = ... m	10	0.632 km x .... = ... m
5	5.3 m x .... = ... dm	11	62 decimals x ......= .... m
6	6.51 cm x ..... = ... mm	12	2.5 m x .... = ... dm

Example (2) Complete (1,000 or 0.001)			
1	29.5kg x ...... = ... g	6	400kg x .... = ... tons
2	520 kg x .... = ... tons	7	6,260gm x ...... = ... kg
3	0.647kg x .... = ... g	8	7.5kg x .... = ... g
4	7,326g x ...... = ... kg	9	267kg x .... = ...tons
5	9.825kg x .... = ... g	10	4,381g x ...... = ... kg

Example (3) Complete (1,000 or 0.001)			
1	31.5 liters x ..... = ... ml	6	300ml x ...... = ... liters
2	267 ml x ..... = ... liters	7	5,620liters x .... = ... ml
3	0.271liters x ..... = ... ml	8	7.2ml x .... = ... liters
4	825ml x ...... = ... liters	9	152liters x .... = ... ml
5	8.267liters x ..... = ... ml	10	6,267ml x ...... = ... liters

Example (4): - Complete	
1	Dalia prepared a liter of cane juice, drank 320 milliliters of it, and her father drank Of it 0.25 liters, how much cane juice is left? ....
2	Rania works as a nurse in a hospital, and she needs 1.35 meters of rolled bandages for each of her 4 patients, there are 250 cm in each box, how many boxes does Rania need? And how much would be left if there were any left? ....
3	If Ehab was 138.2 cm tall in January, and at the end of the year it became his height 1.5 metres, how much is the increase in Ihab's height? ....
4	Eman bought 6.32 meters of fabric and used 164 cm to make a blouse The remainder of the cloth? ....
5	Muhammad drinks 1.4 liters of water in the morning and 834 ml of water in the evening The number of milliliters he drinks in the morning and evening? ....
6	If Malak was 1.34 meters tall, after a year she became 142 cm tall The amount of increase in height in centimeters? ....
7	With Amr, 15 kg of meat was distributed on the first day to the needy, 10 kg of meat, and on the second day, 3,500 gm of meat was distributed. How many kilograms of meat are left? ....

Fifth unit Lesson (10-11)

Divide by powers of 10

Patterns and relationships in powers of 10

• Divide by powers of 10

- Important: when dividing any number by 1000, 100, 10
  The product of the product is reduced by the same number of zeros

300 ÷ 10 = 30 , 7,000 ÷ 100 = 70 , 9,000 ÷ 1,000 = 9,000

- Important: when dividing any number by 1000, 100, 10
  The result of the decimal point moves to the left according to the number of zeros in the factor

  23.61÷ 10 = 2.361 , 23.61÷ 100 = 0.2361

- Important: when dividing any number by 0.001, 0.01, 0.1
  The result of the decimal point will move to the right

  23.61÷ 0.1 = 236.1 , 23.61÷ 0.01 = 2361

Example (1) Complete			
1	5,400÷ 100 = ...	10	900 ÷ 10 = ...
2	700 ÷ 100 = ...	11	2,500 ÷ 10 = ...
3	490 ÷........ = 49	12	3,200 ÷........ = 320
4	267.14÷ 1,000 =.................	13	52.26÷ 100 =.......................
5	480.36÷ 100 =.................	14	75.27÷ 10 =.......................
6	9.0÷ 100 =.................	15	0.6÷ 1,000 =.................
7	267.14÷ 0.001 =.................	16	52.26÷ 0.01 =.......................
8	480.36÷ 0.01 =.................	17	75.27÷ 0.1 =.......................
9	9.0÷ 0.01 =.................	18	0.6÷ 0.001 =.................

Example (2) Complete

1	7.5 ÷........ = 750	4	25.35 ÷........ = 253.5
2	420.2 ÷........ = 0.4202	5	4.426 ÷........ = 4,426
3	.... ÷ 100 = 23.5	6	2.67 ÷........ = 2,670

Example (3) Complete

1	525 cm = ... m 525 × .... = ... 525 ÷ .... = ...	3	400 g = ... kg 400 × .... = ... 400 ÷ .... = ...
2	1,278 m = ... km 1,278 × .... = ... 1,278 ÷ .... = ...	4	625 ml = ... liters 625 × .... = ... 625 ÷ .... = ...

Example (4) Complete

1	0.0342 ÷ 0.01 = ...	4	3.983 ÷ 10 = ...
2	4.277 ÷ 0.1 = ...	5	23.346 ÷ 100 = ...
3	32.67 ÷ 10 = ...	6	26.5 ÷ 1,000 = ...

Example (5) Complete

1	Muhammad walked a distance of 923 m and Muhammad stood up counting his steps and it was 1,000 steps Find the length of the step? ....

Exercises (4)

Example (1) Complete

1	200 ÷ 10 = ………	10	470 ÷ 10 = ………
2	6,300 ÷ 100 = ………	11	7,400 ÷ 100 = ………
3	2,800 ÷……… = 280	12	5,700 ÷……… = 5.7
4	3.5÷ 10= …………..	13	76.1 ÷ 0.01 = …………..
5	37.72 ÷ 100 = …………..	14	5.324 ÷ 1,000 = …………..
6	3.25 ÷ 1,000 = …………..	15	8.4 ÷ 100 = …………..
7	637.24÷ 0.001 =………………	16	26.38÷ 0.01 =……………………
8	748.37÷ 0.01 =………………	17	56.25÷ 0.1 =……………………

Example (2) Complete

1	6.4 ÷……… = 640	4	15.67 ÷……… = 156.7
2	43.67÷……… = 0.4367	5	9.768 ÷……… = 9,768
3	………. ÷ 100 = 37.3	6	8.52 ÷……… = 8,520

Example (3) Complete

1	525 cm = ……………. m 525 × ………… = ……….. 525 ÷ ………… = ………..	2	400 g = ……………. kg 400 × ………… = ……….. 400 ÷ ………… = ………..

Example (4) Complete

1	Ahmed walked a distance of 637 m, and Ahmed counted his steps, which were 1,000 steps. Find the length of the step? …………………………………………………………………………… ……………………………………………………………………………

Fifth unit
Lesson (12-13)

Divide decimals by whole numbers

Divide decimals by decimals

- 58.05 ÷ 15 = ……………………

15	
15	1
30	2
45	3
60	4
75	5
90	6
105	7
120	8
135	9

```
      3.87
15 | 58.05
   _ 45
   -----
     130
   _ 120
   -----
      105
   _  105
   -----
      000
```

There is no Remainder

Example (1) Find the result of the division			
1	76.5 ÷ 7.65 = 1	5	3.6 ÷ 0.4 = ……………………
2	0.33 ÷ 0.11 = ………………	6	7.2 ÷ 0.8 = ……………………
3	0.28 ÷ 0.04 = ………………	7	3.5 ÷ 0.5 = ……………………
4	4.2 ÷ 0.7 = ………………	8	1.2 ÷ 0.4 = ……………………

Example (2) Find the quotient

1	4.86 ÷ 0.9 = ...
2	2.64 ÷ 0.2 = ...
3	6.235 ÷ 0.58 = ...
4	8.018 ÷ 0.19 = ...
5	77.428 ÷ 6,94 = ...
6	0.1932 ÷ 0.92 = ...

Example (3): - Complete	
1	Huda makes ribbons for hair, she has 395.2 yards of fabric, each ribbon needed to 1.6 meters of fabric, how many ribbons of hair can Huda make? ....
2	Rida has a copper wire 64 meters long, and he wants to cut it (divide it) into Pieces of equal length 1.6 meters, how many pieces will there be? ....
3	A bus travels 59.5 meters in 3.5 seconds Calculate the distance the bus travels in one second. ....
4	A train travels 221.65 km in 2.5 hours, calculate the distance it travels in one hour. ....
5	The area of a rectangle is 9.43 cm2 and its width is 2.4 cm. Find its length. ....

Exercises (5)

Example (1) Find the quotient

1	0.51 ÷ 0.04 = …………………	2	0.307 ÷ 15 = …………………
3	74 ÷ 0.8 = …………………	4	0.04 ÷ 57.6 = …………………

Example (2) Find the result of the division

1	2.4 ÷ 0.6 = ………………	5	4.5 ÷ 0.9 = ……………………
2	1.4 ÷ 0.7 = ………………	6	2.2 ÷ 1.1 = ……………………
3	2.8 ÷ 0.7 = ………………	7	1.5 ÷ 0.3 = ……………………
4	2.5 ÷ 0.5 = ………………	8	1.8 ÷ 0.9 = ……………………

Example (3): - Complete	
1	Huda makes ribbons for hair, she has 81.25 yards of fabric, each ribbon needed to 0.25m of fabric, how many ribbons of hair can Huda make? …………………………………………………………………… …………………………………………………………………… …………………………………………………………………… …………………………………………………………………… ……………………………………………………………………
2	Rida has a copper wire 8.75 meters long, and he wants to cut it into two Pieces of equal length 1.75 meters, how many pieces will there be? …………………………………………………………………… …………………………………………………………………… …………………………………………………………………… …………………………………………………………………… ……………………………………………………………………
3	A bus travels 94.5 meters in 3.5 seconds Calculate the distance the bus travels in one second. …………………………………………………………………… …………………………………………………………………… …………………………………………………………………… …………………………………………………………………… ……………………………………………………………………
4	A train travels 9.624 km in 2.4 hours, calculate the distance it travels in one hour. …………………………………………………………………… …………………………………………………………………… …………………………………………………………………… …………………………………………………………………… ……………………………………………………………………
5	The area of a rectangle is 8.748 cm2 and its width is 0.36 cm. Find its length. …………………………………………………………………… …………………………………………………………………… …………………………………………………………………… …………………………………………………………………… ……………………………………………………………………

Exam (unit five)

Example (1) Choose the correct answer

(1)	2.1x 1.2 = ……………………… to the nearest hundredth						
(أ)	252	(ب)	52	(جـ)	2.52	(د)	2
(2)	8,319 ml = ……………………… liters						
(أ)	8.319	(ب)	0.8319	(جـ)	831.9	(د)	83.19
(3)	3.2 ÷ 0.01 ……………. 3.2 × 100						
(أ)	<	(ب)	>	(جـ)	=	(د)	غير ذلك
(4)	When the number 17 is multiplied by 0.1 , the value of the number 7 becomes …………….						
(أ)	0.7	(ب)	70	(جـ)	0.07	(د)	7
(5)	0.75 ÷ ………………. = 750						
(أ)	100	(ب)	1,000	(جـ)	0.01	(د)	0.001
(6)	4.9 ÷ 0.07 = …………………………….						
(أ)	7	(ب)	0.7	(جـ)	700	(د)	70
(7)	6.237 × 100 ≈ ………… to the nearest whole number						
(أ)	624	(ب)	6,237	(جـ)	623	(د)	62

Example (2): - Complete

1	2,567 × 10 = 2,567 ÷ ……………………
2	When a decimal number is multiplied by 0.01, the decimal point moves in the direction of…………
3	1.5×0.37 = ……………………………
4	If 468 = 18 x 26, then: ………………………… = 0.18 x 2.6
5	6.5 ÷ 2.5 = …………………………….
6	97.2 ÷ 0.18 = ……………… ÷ 18
7	When we multiply the number 12.65 by the value of the number 6 in this number, the result will be ………………
8	95 × 41 =………………………

……. ……

…

…

………………………

Example (3) Choose the correct answer

(1)	7,135cm = ... meters.						
(أ)	7,135×0.01	(ب)	7,135×0.1	(جـ)	7,135×0.001	(د)	7,135×10
(2)	When multiplied by 3.7 by .... the result is 3,700						
(أ)	10	(ب)	100	(جـ)	1,000	(د)	10,000
(3)	150 ÷ 40 = ...						
(أ)	3.5	(ب)	3.75	(جـ)	3	(د)	3.075
(4)	The place value of the digit 4 in the number obtained by multiplying 10 x 473 is						
(أ)	units	(ب)	tens	(جـ)	hundreds	(د)	thousands
(5)	The place value of the digit 7 in the number 26,798 is						
(أ)	units	(ب)	tens	(جـ)	hundreds	(د)	thousands
(6)	9 g = ... kg						
(أ)	9,000	(ب)	0.009	(جـ)	900	(د)	0.09
(7)	In the numerical form 33,455,436, what number has increased by 1,000 times in this numerical form?.......						
(أ)	5	(ب)	4	(جـ)	3	(د)	6

Example (2): - Complete as required

1	1.5 ⟌ 37.95 7.05 × 9.1 ....+ ....
2	Amira bought a 1.8 liter bottle of water, of which she drank 950 ml ....
3	A strip of length 14.2 meters was divided into 5 equal parts. How long is each part? ....
4	If the price of one bottle of juice is 13.8 pounds, how much is the price of 7 packages of the same kind? ....

Unit Six
Lesson (2-1)

- Numerical expressions
- Numeric expressions that contain parentheses

• Chart of the order of calculations .

parenthesis → foundations → Multiplication and division From left to right → Addition and Subtraction From left to right

Example (1) Find the value of the numerical expression			
1	12 + (9 – 2) × 8 = 12 + 7 × 8 = 12 + 56 = 68	3	53 × 2 + 54 ÷15 = 106 + 36 = 142
2	2,514.6 – 23.4 ÷ 0.01 +11.7 = 2,514.6 – 2340 + 11.7 = 174.6 + 11.7 = 186.3	4	288 – (12 + 3 x(28.5 x 2.1)) = 288 – (12 + 3 x 59.85) = 288 – (12 + 179.55) = 288 – 191.55 =96.45

Example (2) Use the order of operations to find the value of each of the numerical expressions			
1	597.8 ÷ 6.1 + 13 × 1.7 = ... = ... = ...	4	1.7 ÷ 0.1 + 12.5 = ... = ... = ...
2	3.9 ÷ 6 + 2 – 5 = ... = ... = ... = ...	5	((4.4+9.1) ÷ 3) × 6 = ... = ... = ... = ...
3	10.2 × (0.1 + (5.8 ÷ 0.1)) = ... = ...	6	(25.46+12.14)÷4+10.21 –2.1 = ... = ...

	= .... = ...		= .... = ...
7	2.1 x(0.2+16.08 – 7.12) ÷0.1 = ... = ... = ... = ...	8	2.1 x0.2+(16.08 – 7.12) ÷0.1 = ... = ... = ... = ...
9	20 + 33.29 × 10 – 6.1 = ... = ... = ... = ...	10	3.8 × 9.5 + 6.25 = ... = ... = ... = ...
11	88 ÷ 11 – 7 + 4 = ... = ... = ... = ...	12	20 + 33.29 × 10 – 6.1 × 10 = ... = ... = ... = ...

Example 3: - Compare using (= , < , >)			
1	(24.1×0.2 + 5.3) ÷ 0.1 = ... = ... = ... = ...		24.1×(0.2 + 5.3 ÷ 0.1) = ... = ... = ... = ...
2	((4.4 + 9.1) ÷ 3) × 6 = ... = ... = ... = ...		15.05+0.1 + (11.34+(34×5)) = ... = ... = ... = ...
1	28 – 5 × 4 ÷ 2 = ... = ... = ... = ...		10.2×(0.1+(5.8÷0.1)) = ... = ... = ... = ...
2	6 + (27.1 ÷ 0.2 + 6.6) = ... = ... = ... = ...		(11.34+34)×5 = ... = ... = ... = ...

Exercises (1)

Example (1) Use the order of operations to find the value of each of the numerical expressions

1	45.84+(13.05÷5+20.32–1.14) = ... = ... = ... = ...	3	45.84+13.05÷5+(20.32–1.14) = ... = ... = ... = ...
2	158÷2+6×10.5 – 5 = ... = ... = ... = ...	4	30×2.5+47.18 – 3.12÷0.1 = ... = ... = ... = ...
5	32.52+2.04+20.32 × 0.3 = ... = ... = ... = ...	6	45.84+13.05 ÷ 5 × 0.1 = ... = ... = ... = ...
7	42÷2+6×10.5 = ... = ... = ... = ...	8	20×2.5 + 3.12+0.1 = ... = ... = ... = ...

Example 2: - Compare using (= , < , >)

1	35.2×0.1 + 3.5 = ... = ... = ... = ...		60.5 – (15.2 × 0.3 ÷ 0.1) + 4 = ... = ... = ... = ...
2	35 × 0.1 + 89.14 ÷ 0.1 = ... = ... = ... = ...		15.1×10 – 8.15 + 1.26 ÷ 5 = ... = ... = ... = ...

Unit Six lesson (3)

Write a numerical expression to represent a situation

Example (1) Write the numerical expression and find its value.			
1	subtract 4.3 from 9.5 Then multiply the result by 3 =.................................. =..................................	3	Multiply 4.3 by 100 Then I subtract 42.6 =.................................. =..................................
2	Add 17.35 to 0.1 x 24.5 Then I subtract 12.04 =.................................. =.................................. =..................................	4	Divide 654 by 0.5, then subtract 146, and then divide the result by 2 =.................................. =.................................. =..................................

Example 2: - Complete the following	
1	Mohamed saves 100 pounds to buy school books and he started working in two jobs, in the first job he gets 70 pounds per week and in the second job he gets 50 pounds. He saves money from both jobs for 4 weeks to add to what he has, so what is the total amount after 4 weeks? ....
2	Mounir lifts weights for training for an upcoming competition. He installs 4 weights in the bar, two large weights and two small weights. The mass of each large weight is 33.75 kg, and each of the two small weights exceeds it by 17.5 kg. The mass of the weights The mass of the four weights is 100 kg. What is the mass of each of the two small weights? ....

Exercises (2)

Example (1) Write the numerical expression and find its value.			
1	subtract 3.7 from 5.9 Then multiply the result by 2 =................................. =.................................	3	Multiply 7.5 by 100 Then I subtract 62.4 =................................. =.................................
2	Add 34.13 to 0.1 x 54.5 Then I subtract 22.05 =................................. =................................. =.................................	4	Divide 246 by 0.5, then subtract 30, and then divide the result by 2 =................................. =................................. =.................................

Example 2: - Complete the following	
1	Mohamed saves 1,000 pounds to buy school books, and he started working in two jobs. In the first job, he gets 40 pounds per week, and in the second job, he gets 30 pounds. He saves money from both jobs for 4 weeks to add to what he has, so what is the total amount after 4 weeks? ....
3	Huda fills identical vases with water, starting with 17.75 liters and pouring an equal amount into 12 vases. After the work is finished, Huda still has 5.75 liters of water. How much water is in each vase (in liters) ? ....

Unit Six lesson (4)

Identify numerical patterns

Visual pattern
- It is the repetition of shapes or symbols In a specific system.

numerical pattern
- A sequence of numbers according to a specific rule.

Example (1) Notice the pattern, then select the rule and complete it.

1	2 ، 4 ، 6 ، 8 ، ...... ، .... The rule: collect every 2 times The rule: 2 + n	3	45 ، 40 ، 35 ، 30 ، ...... ، .... Rule:.................................. Rule:..................................
2	2 ، 4 ، 8 ، 16 ، ...... ، .... Rule:.................................. Rule:..................................	4	1.5 ، 3 ، 4.5 ، 6 ، ...... ، .... Rule:.................................. Rule:..................................

Example (2) Complete the pattern and write the rule using a variable:

Input	output
7	1
14	2
21	3
28	....

Rule:....................

Input	output
5	20
6	....
7	28
....	32

Rule:....................

Input	output
10	6
12	7
....	8
16	9

Rule:....................

Example (3) Complete.

1	■● ، ■●●،■●●●،.........	3	◆⍓،◆⍓⍓،........................

Example 4: - Complete the following

1 Write a number pattern using base $1 + \frac{n}{2}$ It consists of 4 numbers and its starting number is 20

....

....

Exercises (3)

Example (1) Notice the pattern, then select the rule and complete it.

1	0.5 ، 1 ، 1.5 ، …… ، …… Rule:…………………………… Rule:……………………………	3	13 ، 17 ، 21 ، 25 ، …… ، …… Rule:…………………………… Rule:……………………………
2	85 ، 73 ، 61 ، 49 ، …… ، …… Rule:…………………………… Rule:……………………………	4	4 ، 8 ، …… ، 32 ، 64 ، Rule:…………………………… Rule:……………………………
5	7 ، 12 ، 17 ، …… ، 27 ، Rule:…………………………… Rule:……………………………	6	0 ، 1 ، 1 ، 2 ، 3 ، 5 ، …… Rule:…………………………… Rule:……………………………

Example (2) Complete the pattern and write the rule using a variable:

Input	output
1	……..
2	40
……..	60
4	……..

Rule:………………

Input	output
1	10
2	……….
……..	30
4	40

Rule:………………

Input	output
1	5
2	10
3	……..
……..	20

Rule:………………

Input	output
31	10
39	18
……..	26
55	34

Rule:………………

Input	output
4	16
5	……..
6	24
……..	28

Rule:………………

Input	output
1	……..
2	……..
3	7.5
5	12.5

Rule:………………

Example (3) Complete.

1 ● ، ●● ، ●●● ، ………

3  ، ………………

Example 4: - Complete the following

4	Starting number 4 and base (n + 3)× 2 ……… ، ……… ، ………. ، ……..
5	The fifth stage in the pattern: 5, 3, 1 is…………………………
6	The third stage in the pattern whose base is (n × 2) – 1 and whose starting number is 4 is………………………………………

exam (unit six)

Example (1) Choose the correct answer

(1)	The next number in the pattern: ....., 1.9, 1.7, 1.5 is......						
(أ)	2.11	(ب)	2.1	(جـ)	10.9	(د)	11.1
(2)	88 ÷ 11 – 7 + 4 = ...						
(أ)	4	(ب)	5	(جـ)	7	(د)	8
(3)	The rule for the pattern: ...., 81, 27, 9, 3, 1 is........						
(أ)	÷ 3	(ب)	+ 3	(جـ)	× 3	(د)	- 3
(4)	12represents............						
(أ)	number	(ب)	number	(جـ)	both together	(د)	otherwise
(5)	To find the value of the numerical expression: (4.6 + 2.2) x 3.9 - 3.1, you must perform a .... operation first.						
(أ)	Untie the parentheses	(ب)	Subtract	(جـ)	Division	(د)	Multiply
(6)	If the base of the pattern is n + 2 and the input is 12, then the output is....						
(أ)	14	(ب)	10	(جـ)	16	(د)	13
(7)	12 +(24 ÷ 4) + 8 = ...						
(أ)	62	(ب)	26	(جـ)	28	(د)	82

Example (2): - Complete

1	If the starting point is 5, and the base of the pattern is n×2, then the pattern is ....
2	Complete in the same sequence: ...., ..., 28, 36, 44, 52
3	If the input is 2, and the base of the pattern is 3 x n , then the output is ....
4	The next number in the pattern: ...., 9.5, 8, 6.5, 5 is.....
5	3.2 ×(4 ÷ 2) – 1.5 = ...
6	The numerical expression corresponding to: add 4.5 and 7.3, then subtract 1.8, and multiply by 10 is ....
7	Find the product of 0.1 + 3.12 – 47.18 + 2.5 x 30 ....
8	The numerical expression that expresses: Divide 26 by 0.2, then add 12.14, and multiply the result by 0.3 is ....

Example (3) Choose the correct answer

(1)	The value of the numerical expression: 2.7 + (7.5 ÷ 10) equals						
(أ)	77.7	(ب)	3.45	(جـ)	1.95	(د)	19.2
(2)	The base of the pattern is (3, 2.5, 2, 1.5, 1, 0.5) is........						
(أ)	n×2	(ب)	n - 3	(جـ)	n + 2	(د)	n + 0.5
(3)	If the base of the pattern is 2n - 1 and the input is 3 then the output is..........						
(أ)	3	(ب)	5	(جـ)	7	(د)	9
(4)	The first step to solving the problem: 7.2 ÷ 0.8 × 0.1 is..................						
(أ)	Untie the parentheses	(ب)	Subtract	(جـ)	Division	(د)	Multiply
(5)	The value of the numerical expression 18 × 2÷ 9 + 9 is						
(أ)	10	(ب)	11	(جـ)	12	(د)	13
(6)	The rule for the following pattern: ...., 8, 5, 2 is						
(أ)	n+3	(ب)	(n×2)+1	(جـ)	n+3	(د)	(n×2)-1
(7)	If the entrance is 6 and the exit is 2, then the rule is						
(أ)	n÷3	(ب)	n×3	(جـ)	n÷2	(د)	n×3

Example (2): - Complete as required

I use the order of operations to find an output 8 + 4.2 ÷ 0.7 – 2 × 4.5	1
Write a numerical expression that matches the following problem, then find the value of the numerical expression Subtract 3.2 from 7.5, then multiply by 3	2
Write a numerical expression that matches the following problem, then find the numerical expression Samir cycles 24.6 km in two hours, if he cycles at the same rate all the time, how many meters does he cycle per minute?	3